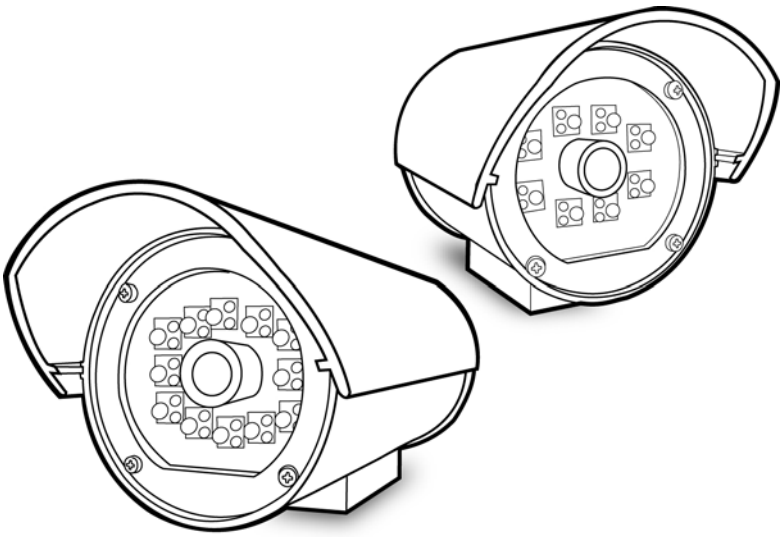
VxIP 9611 – VxIP 9612

3GPP IR Network Camera



User's Manual

Version 1.0

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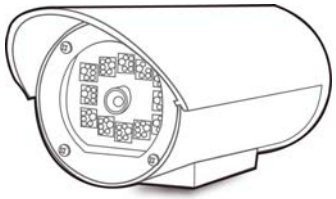
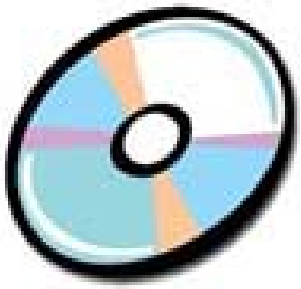
Package Contents

The 30 M / 25M IR Network Camera is provided with the following accessories.
Please contact your dealer if any one of the following is missing.

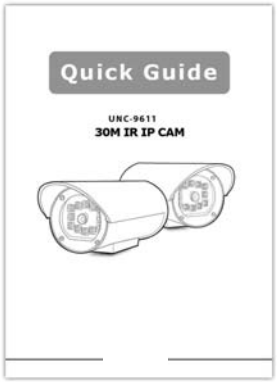


1. 30 M / 25M IR Network Camera

2. 12V DC Power Supply
(Only available for 25M IR model)



3. CDROM
(Including User Manual / ip finder / NVR setup / NVR manual/ Quick Guide)



4. Quick Guide

System Requirements

30 M / 25M IR Network Camera	
Internet Environment	
LAN	10/100M Ethernet
Wireless LAN	802.11b or 802.11g
Monitor System Requirements	
OS support	Windows 2000 Professional SP4, XP Home SP2
Browser support	Internet Explorer 6.x or later
Hardware	CPU: Pentium 4 2.4 GHz or later Memory: 256 MB (512 MB recommended) VGA card resolution: 800 x 600 or higher

Introduction

The 30 M / 25M IR Network Camera is a multi-functional stand-alone IR CCD Network Camera that can connect to Ethernet, LAN, or any broad-band networks. Equipped with 12/8 High-light & long life LED, the camera can provide up to 20,000 hours IR function. The 30 M / 25M IR Network Camera carries a rating of IP 66, keeping the electronic equipment dust-tight and dry in the strongest storms to provide maximum security against equipment damage. The camera uses SONY CCD sensor provides vivid image for your best surveillance purpose. Unlike traditional CCTV cameras, the 30 M / 25M IR Network Camera has a built-in CPU and webpage server to provide users with a mechanism for home security or remote office monitoring applications. The 30 M / 25M IR Network Camera supports 3GPP real-time video streams that allow you to control the home or office environment using a 3G mobile phone. The 30 M / 25M IR Network Camera is easy to install and use. The built-in webpage server enables you to control the security and property of your home or offices remotely and easily from anywhere there is a networked computer.

Features and Advantages

The 30 M / 25M IR Network Camera is a stand-alone IR CCD Network Camera. It can operate smoothly without the need to install additional software or hardware. All that is needed is a PC equipped with IE browser (6.0 or above) connected to the Internet Camera via the network to monitor pre-set places remotely. The 30 M / 25M IR Network Camera provides great remote accessibility of personal, home, and assets just as though you were really there.

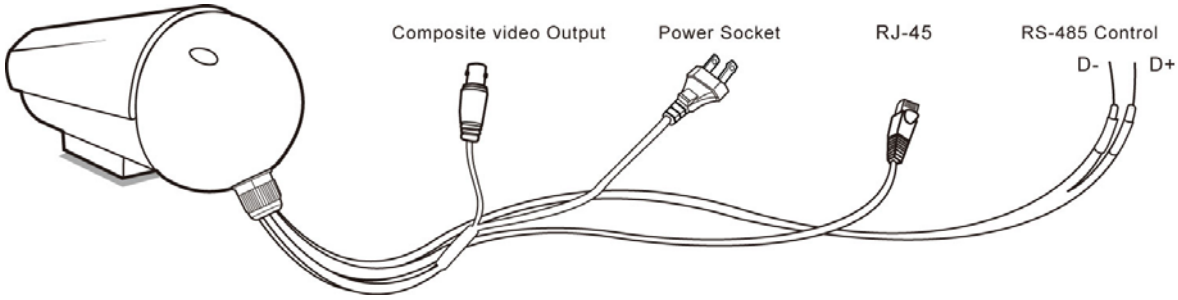
The 30 M / 25M IR Network Camera features:

- 1/3"Sony CCD color image sensor to ensure clear and vivid imaging effect;
- MPEG4/MJPEG dual video compression mode and dual coding mechanism for multiple applications;
- 12/8 pcs High-light & long life LED, the camera can provide up to 20,000 hours IR function.
- Use international IP66 housing standard for providing maximum security against equipment damage.
- Support of 3GPP real-time video streams that allow you to control home or office environments using a 3G mobile phone;
- Built-in smart motion detection to monitor abnormal situations automatically and transmit real-time according to pre-set trigger commands;
- Built-in webpage server that allows easy control via the Internet;
- Dynamic IP domain name support for use of the product at locations where a fixed IP is not available;
- Access setting by level to ensure security and protection of life and property;
- Elegant style suitable for homes, studios, offices, clinics, and retail shops;

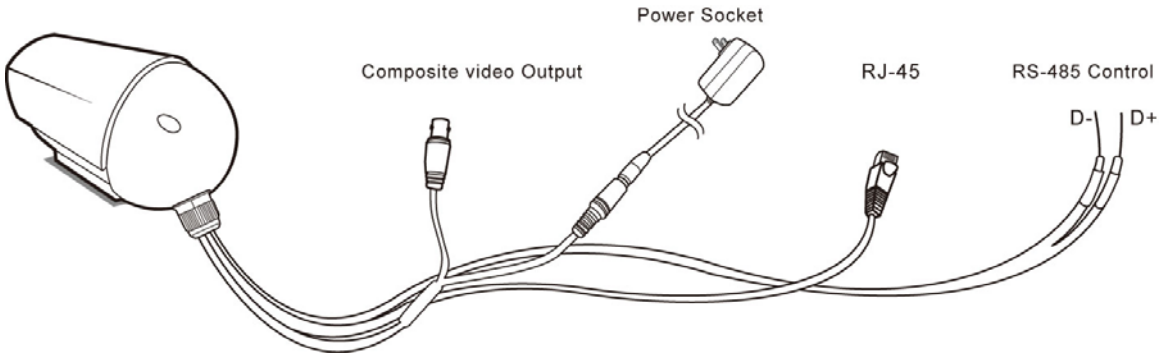
System Introduction

1. AC power cable: The AC input connector has a socket to connect the product to a power source.
2. Ethernet connector: An RJ-45 connector is provided for connection to the 10Base-T Ethernet cable or 100 Base-T High Speed Ethernet cable. This port can automatically detect or coordinate the transmission rate of the network.
3. Use a video/audio output cable for external video/audio transmission if required. The video source use BNC connector, you can purchase the connector from your nearby electric material shop.
4. RS-485 port: If an additional rotary stage is required, please use this product at the rotary stage from the RS-485 port. This product supports rotary stages using Pelco P and Pelco D protocols.

30 M IR Network Camera Connecting Diagram

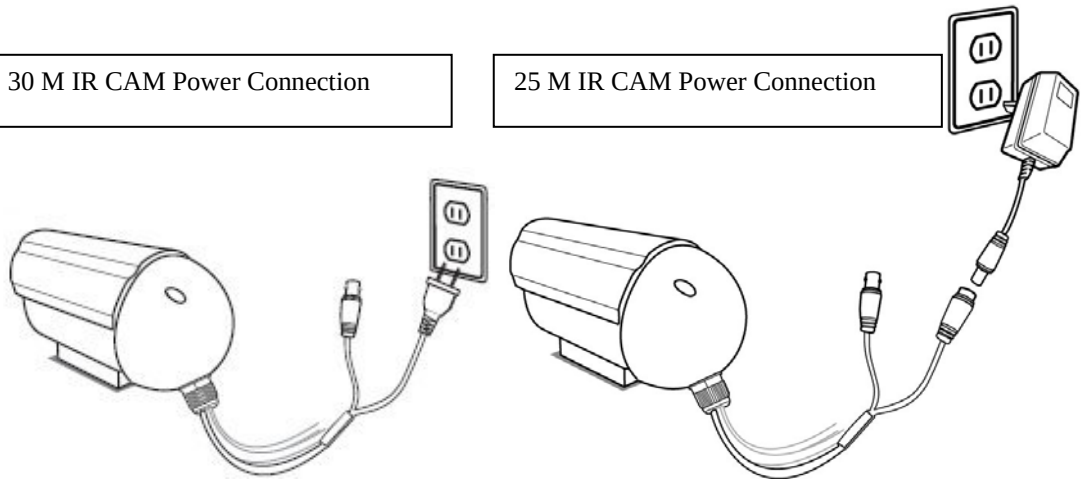


25M IR Network Camera Connecting Diagram



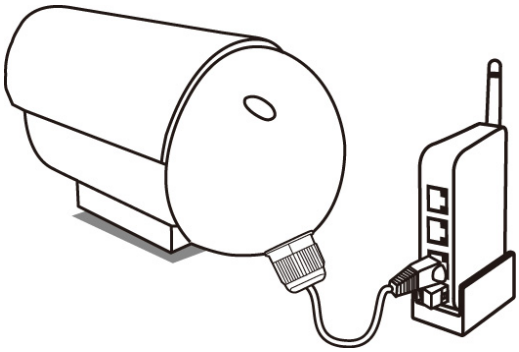
AC Power
Plug the power cable in the power socket on the product.

30 M IR CAM Power Connection	25 M IR CAM Power Connection



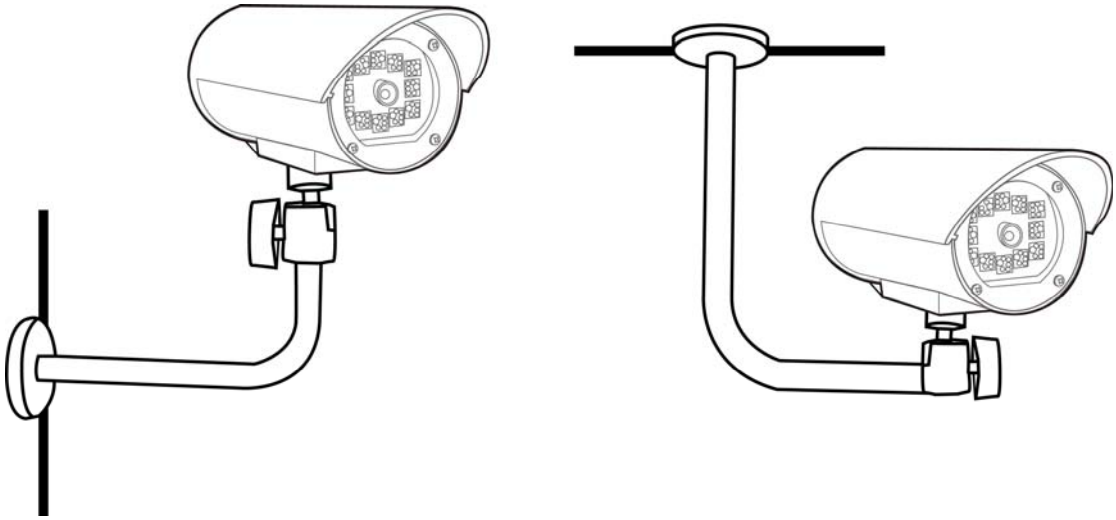
Video Output
Plug the video output cable into the monitor or recording equipment.

LAN Socket
Connect the LAN cable into the LAN socket.



RS-485 port
If you have a rotary stage using a RS-485 interface, please connect it to the product with an RS-485 cable. For detailed information, please refer to PTZ chapter for more description.

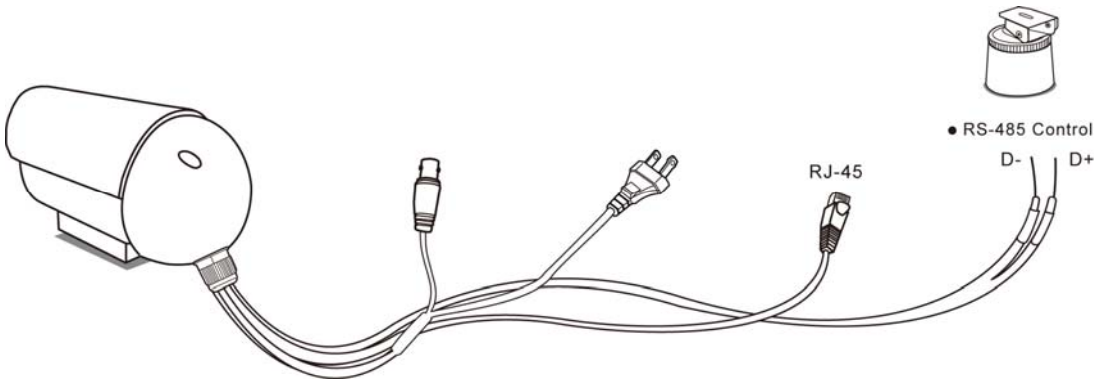
Hardware Installation



a. Product location: You can install the product on the holder and hang it on the wall or ceiling. Please do not install this product in locations of poor ventilation. This will result in poor operation.

b. If you have an RS-485 rotary stage, please connect this product to the stage from the RS-485 port. Please make sure the poles must be correctly connected.

c.



1. Connecting to LAN

Please connect the camera to your network with a LAN cable from the LAN Socket.

2. Connect to the power source

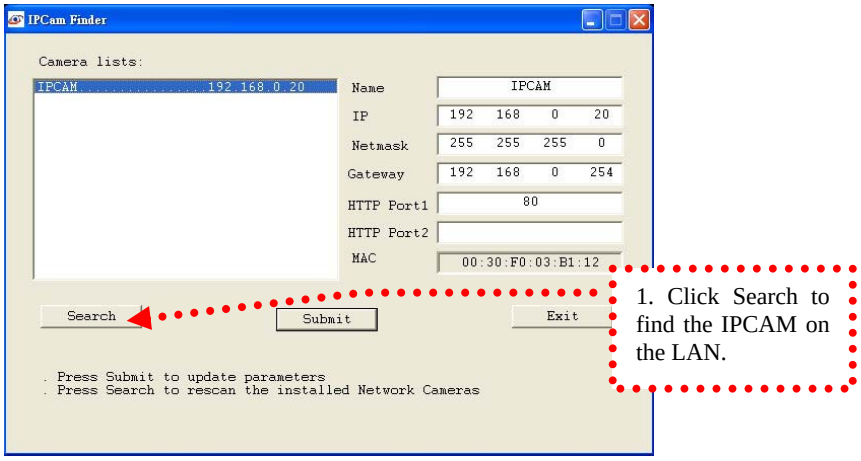
Plug one end of the attached power cable in the power socket of the product and connect the other end to the AC power source.

Note: After connecting the product a power supply, you can check if it is on from the Status LED on the front.

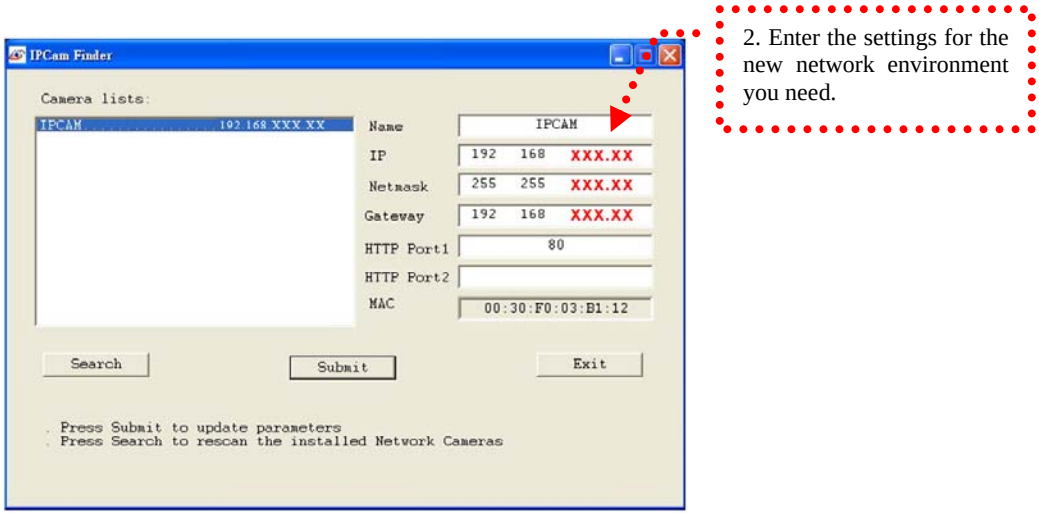
Camera Settings

After the hardware has been installed, insert the supplied CD in the computer and execute the file IP FINDER.EX following the steps below to search for and change the IP address of the camera.

1. Start the machine.
   Execute the IP Finder.exe from the supplied CD.
2. Find the camera (Search)
   Search for the product from your LAN. The factory IP setting 192.168.0.20 appears on the screen.

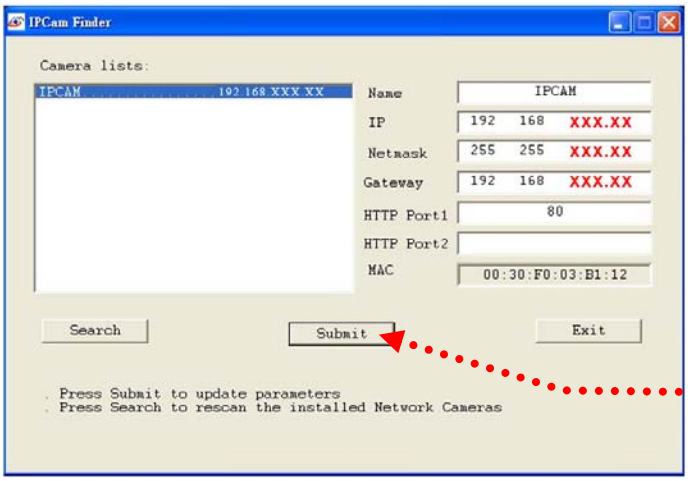


3. Changing the IP address and related settings for the network environment
   When you find the camera, click it and the settings will appear on the right side. Change the settings for the new network environment you need.

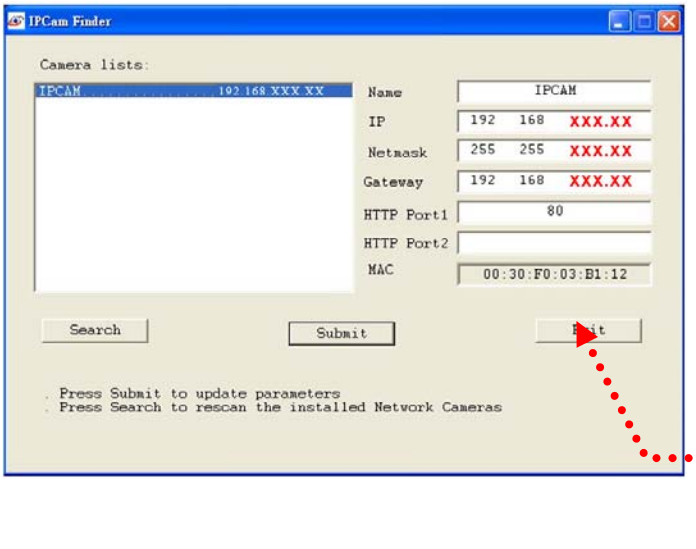


※ You must enter new settings in the IP, Netmask and Gateway fields and keep the settings in other fields unchanged.

4. Submit data (Submit)
   Click Submit to validate new settings.



5. Confirmation
When all changes have been confirmed, click “Exit” to quit.



Notes:

1. The IP FINDER can only find the IP addresses of cameras that share the same hub on the LAN. For information about finding IP addresses on the Internet, refer to the “DDNS Setting”, or “UpnP Setting”.
2. All of our camera/network server products can be found and changed using the IP FINDER software.
3. If the IP FINDER software cannot be executed, check your antivirus software or firewall to remove the block.
4. Field description: You can give a name to your camera (such as “PT_IP” or “PT-IP”). No spaces allowed (such as “PI IP”).

   You can change the settings for IP, Gateway Address and Network Mask to meet the requirements of your network environment. The product uses HTTP Port1 and does not support Port2 settings.

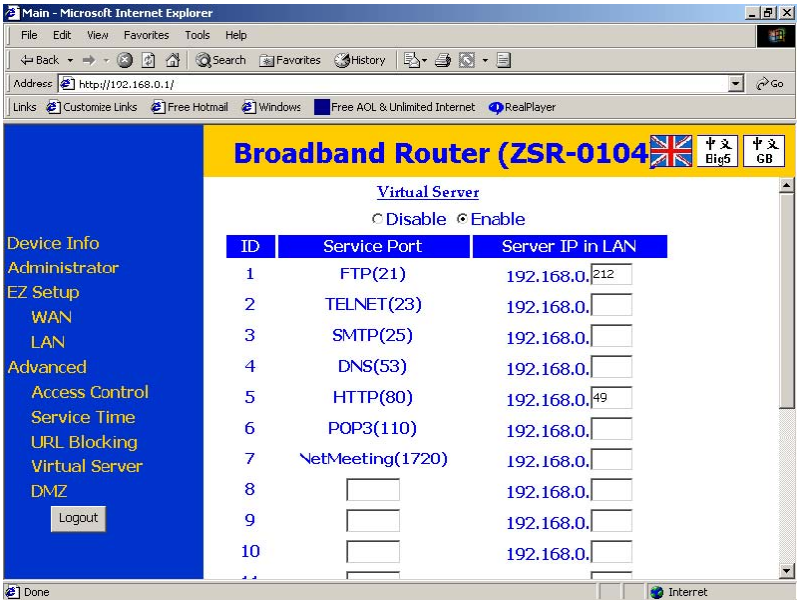
   MAC: Factory default network identity of the machine.

Camera Setting from a Router

You can use DHCP when you want to use the camera on the Intranet (LAN). However, the IP must fixed when you want to use the camera on a WAN. For this application, it is required to set up a virtual server on the ADSL router. Follow the steps below to complete the setting:

1. Enter the camera setting page to set a fixed IP. (Refer to the “Network Setting”.) Ex.: 192.168.0.49
2. Enter the ADSL router main setting page. Ex.: Zonet ADSL router
3. Enter the Virtual Server setting page.
   a. Set “mapping of *HTTP Port (80)* to *192.168.0.49* ”.
   b. Restart ADSL router.

After completing the settings, you can operate the camera from a WAN IP Address via the ADSL router.



Example: The Virtual Server setting screen of the Zonet ADSL router

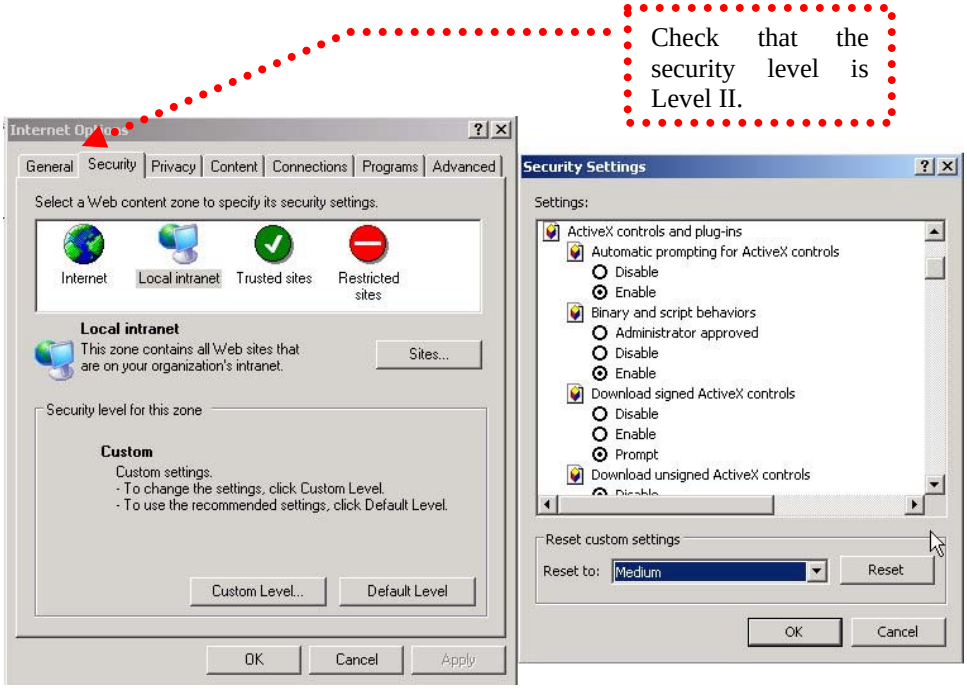
Note: The virtual server of setting screen is not the same for all ADSL routers. Refer to the manual of the ADSL router you purchased for more information about the setting.

Change the Internet Explorer Setting

This product uses ActiveX Control to play images and sound on your PC. The ActiveX Control application software will be downloaded to your PC when you connect it to the Internet. To ensure successful download of the software, the Internet Explorer "security settings" must be changed accordingly. Make sure that the security level is set to **Level II**, the commonly used default security level.

Steps:

Open the IE browser ➔ Tools ➔ Internet Options ➔ Security ➔ Custom Level

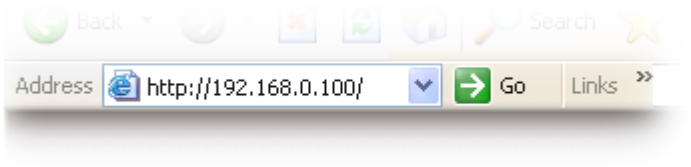


Check the security setting

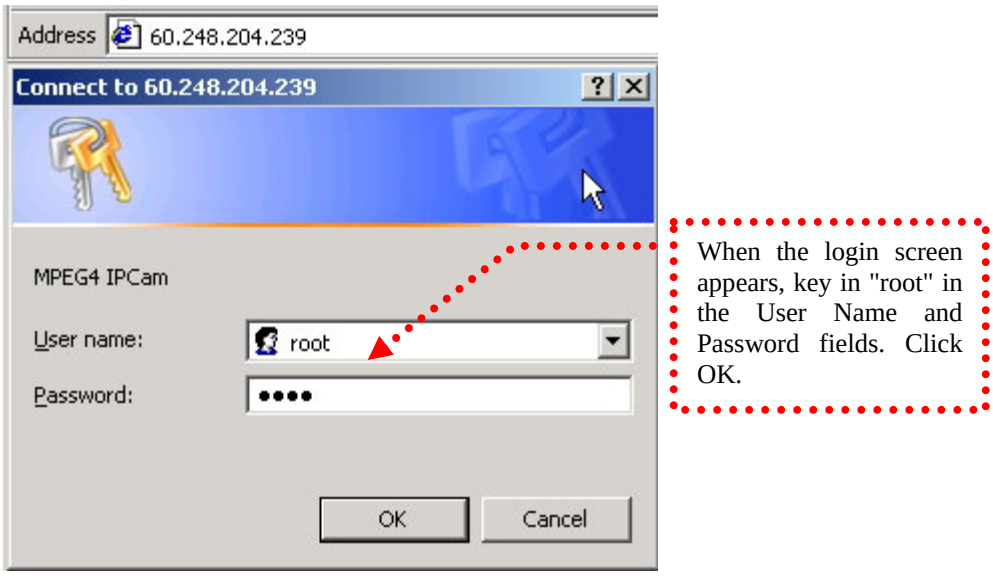
Note: This product supports IE 6.0 or above.

Enter the Main Page

1. Open the IE browser and key in the IP address of the product.



Key in the IP address of the camera



Camera login screen

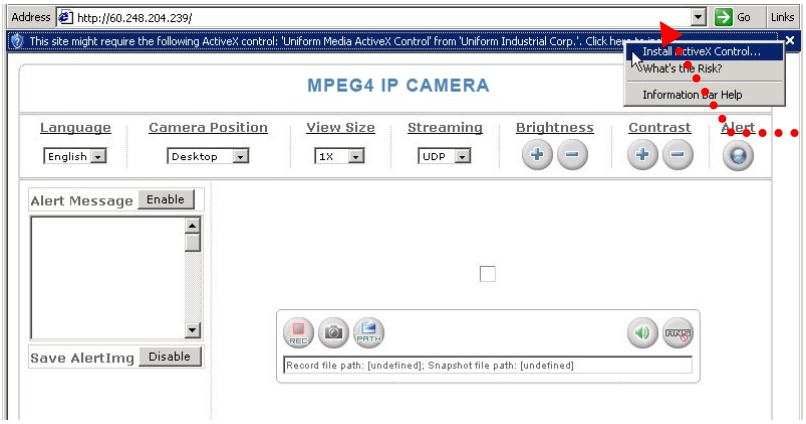
2. Key in the default “username” and “password”.

   Default User Name: **root**

   Default Password: **root**

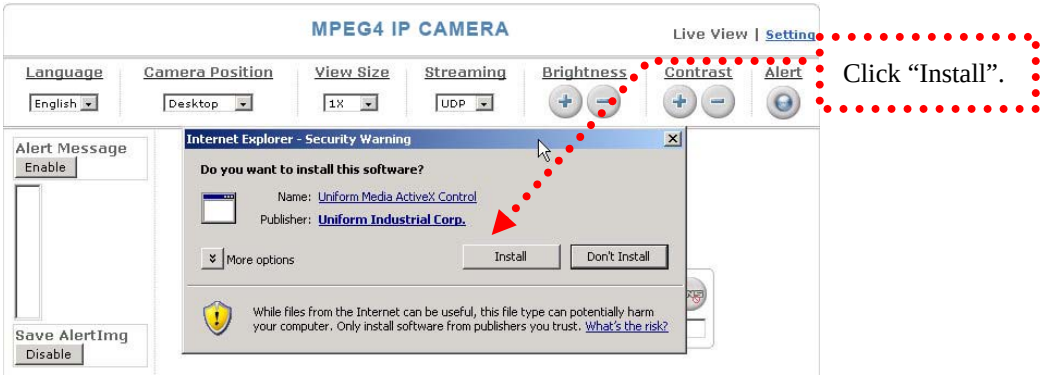
   You can access the camera as an administrator by default and set up for other users or privileges from the “Basic Settings” -> “User”.

3. Installation of Internet Explorer ad-hoc components
   When the username and password are confirmed, a control setup screen pops up under the IE address bar. Click “Install ActiveX Control” to install the controls.



Setup prompt screen

4. The security warning screen appears. Click "Install".
The ActiveX Control is named "UIC ActiveX Control". This software is owned by UIC and well certified. You can use it without any doubts about its validity.



5. When ActiveX Control is installed successfully, you will see the camera image and interface.

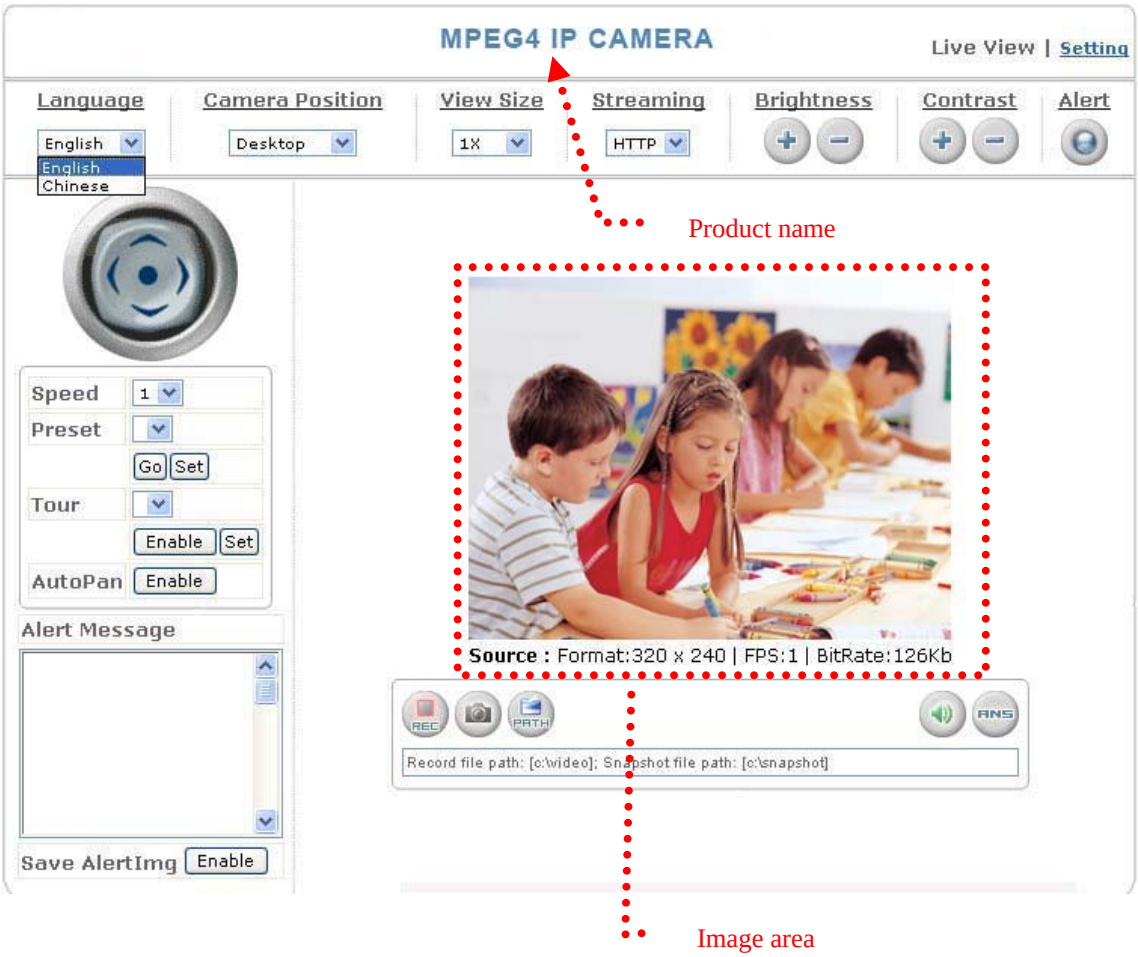
Camera main page and image

Camera Main Page

Descriptions:

Source: Information bar

1. Format: resolution of the current video stream
2. FPS: Frame Per Second of the current video stream
3. BitRate: bandwidth per second of the current video stream

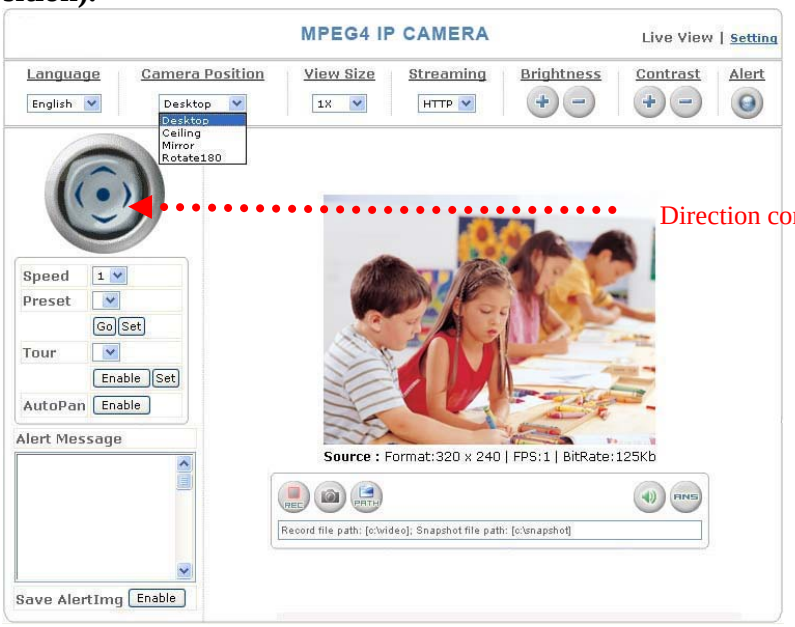


Attention: Please change the streaming setting to HTTP if nothing appears in the image area.

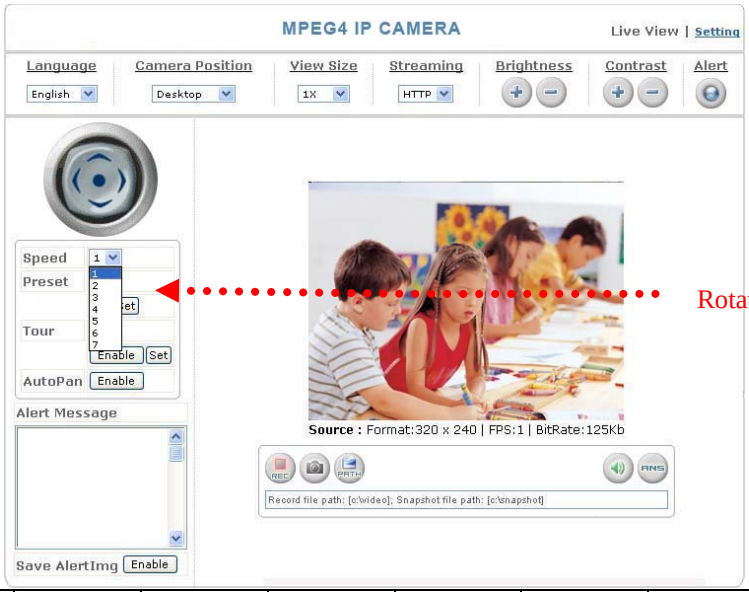
Control panel

Note: Camera functions can only be used on a rotary stage. See the Rotary Stage section for details.

1. **Camera direction: controls the direction of the camera (up, down, left, right, home position).**



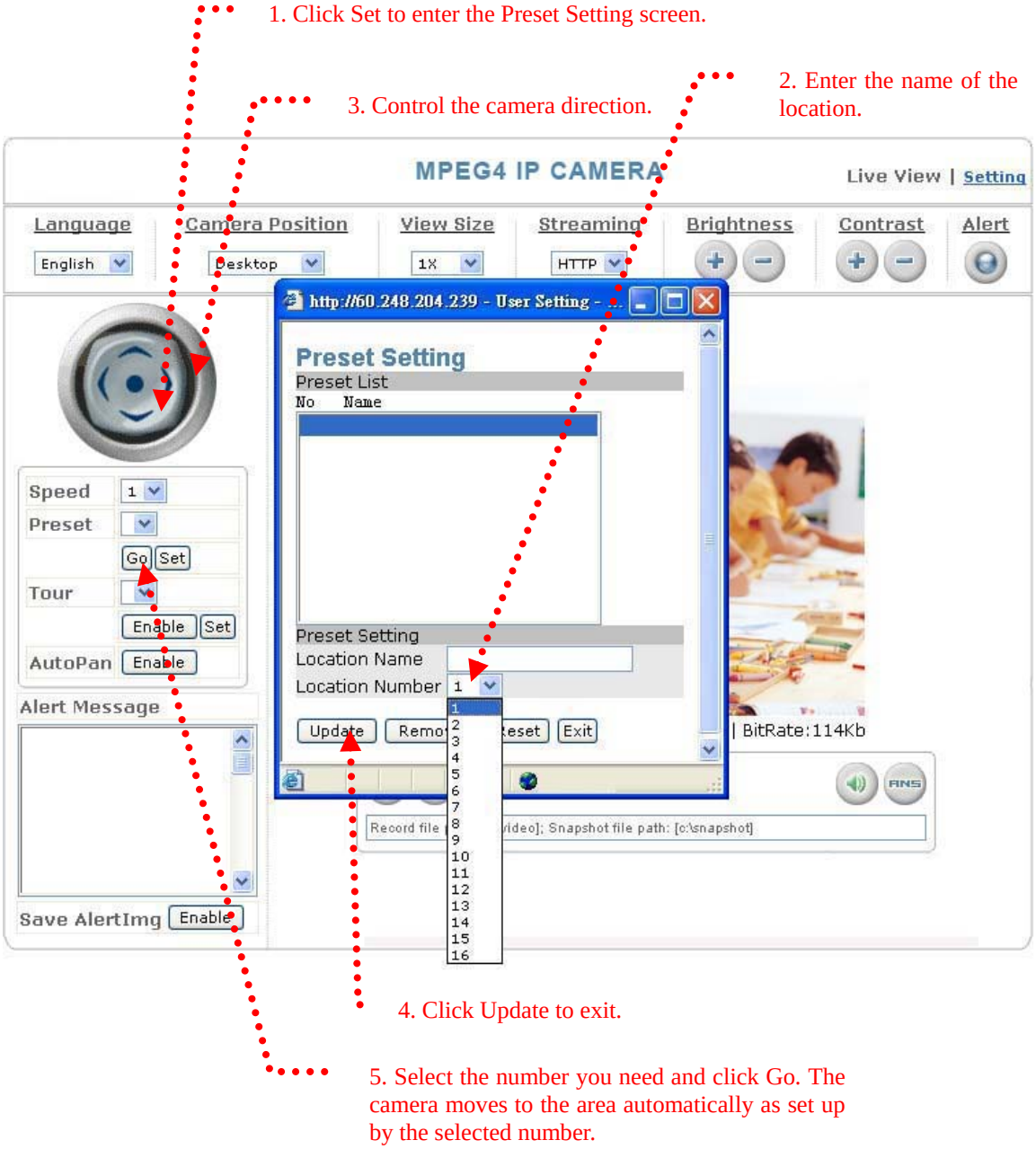
2. **Camera speed: controls the rotation speed of the camera from "1" (lowest) to "7" (highest). This function must work with the characteristics of the rotary stage.**



Speed	1	2	3	4	5	6	7
Angle/Sec.	3	20	40	60	80	100	120

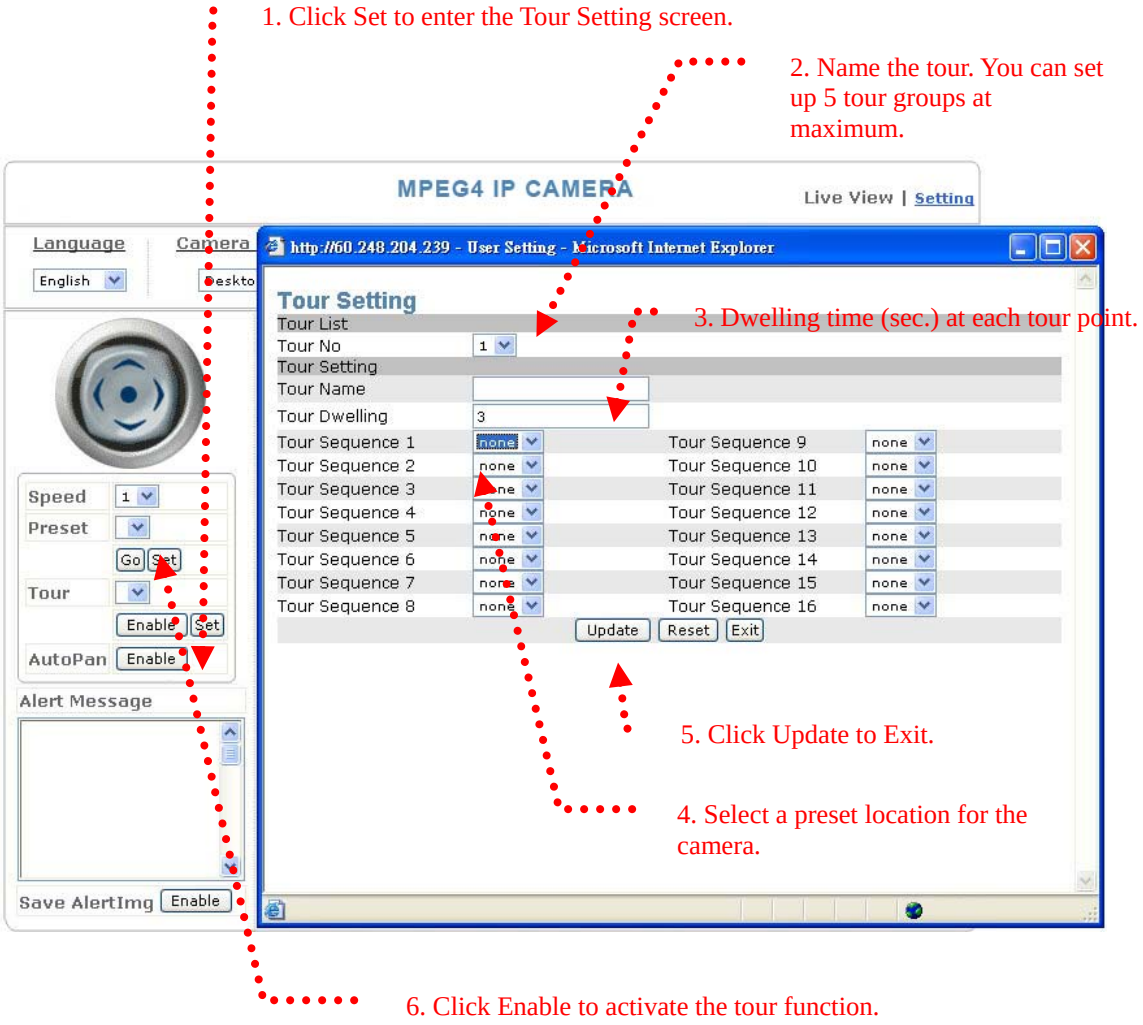
3. Preset: presets the rotation points for the camera (16 points)

This function allows you to preset the points you wish to monitor. Then you can assign a code to each point. The rotary stage will automatically rotate to this preset point once you press the assigned code. It can save time and labor of manual control. More importantly, it is more accurate. This function must work with a rotary stage.



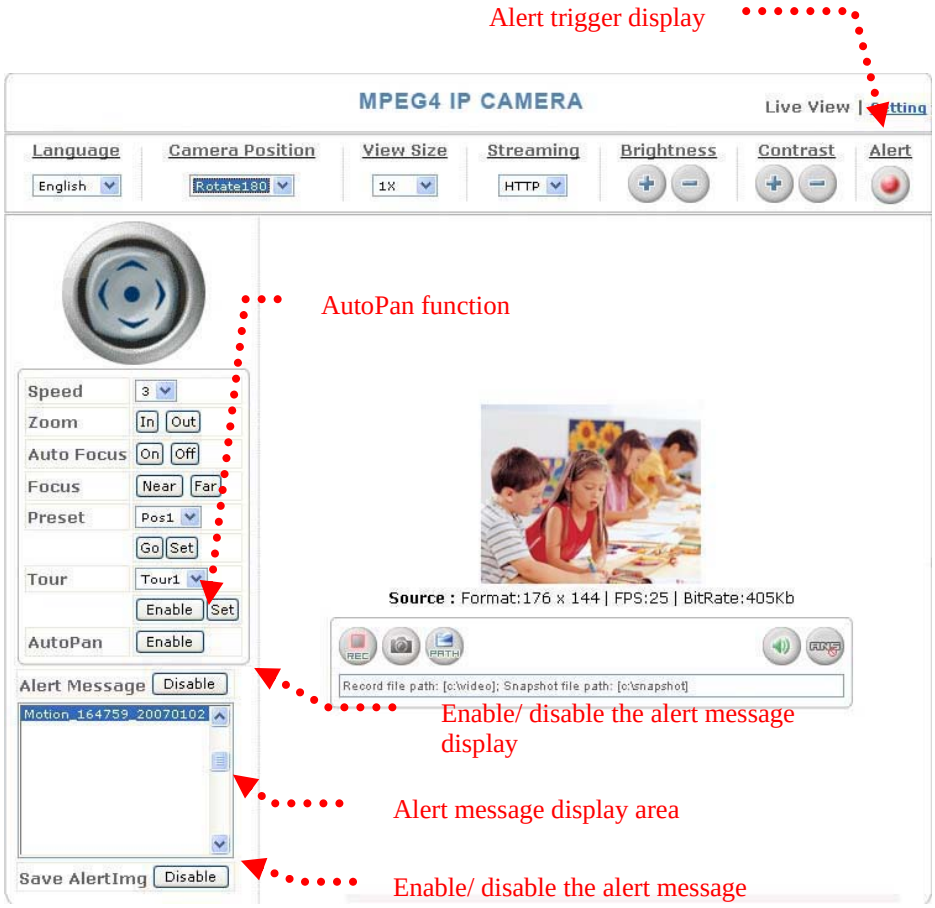
4. Tour: enables/disables the tour mode of the camera.

The rotation points of the camera must be set up in advance.
This function allows you to set up to 5 cruising routes.
This function must work with a rotary stage.



5. **AutoPan: enables/disables AutoPan.**
   You can enable the AutoPan function to make the camera automatically move back and forth horizontally. Disable the AutoPan function to stop the scan. This function must work with a rotary stage.

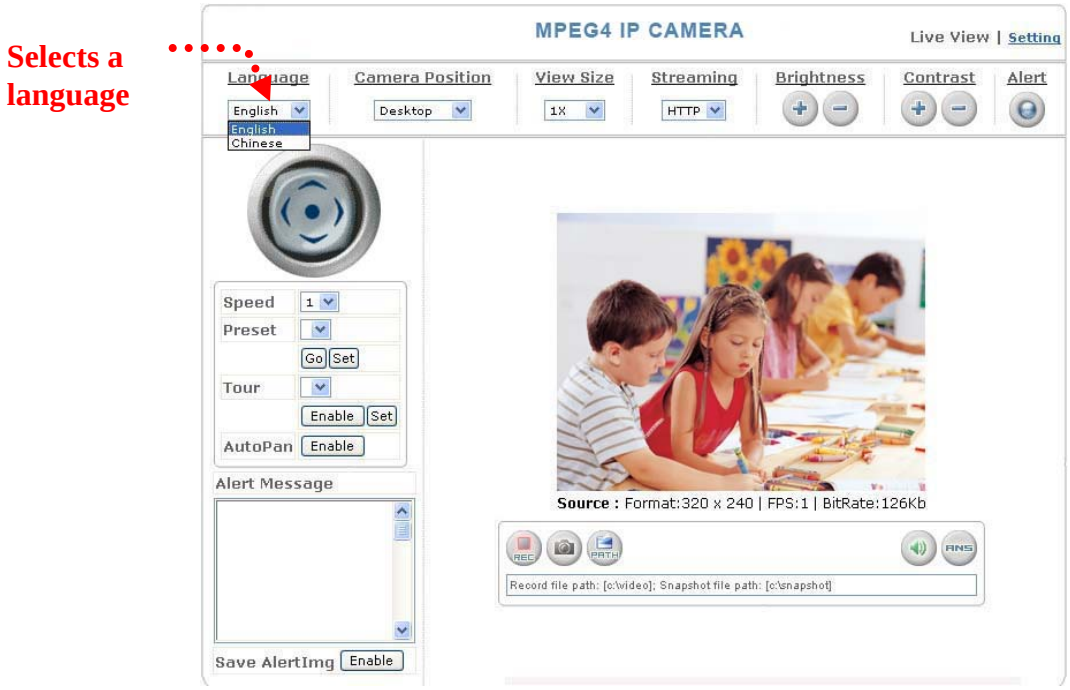
6. **Alert: displays alert trigger**
   This indicator flashes to warn you when a movement or alert is detected. Click to stop the flash.



7. **Alert Message: enables/disables the alert message display.**
   Alert Message: displays the alert message. Press Enable/Disable to enable or disable the alert display message. When this function is disabled, the alert message will not be displayed.
   Save AlertImg: saves the alert message. Press Enable/disable to enable or disable the save of the alert image in the Snapshot directory. When the Save AlertImg function is enabled, double-click it to show the alert image. A message appears whenever an alert is triggered (50 messages at maximum). The message disappears when you quit the screen. (For more information about this setting, refer to the Setting/Application Setting/Event/Event.)

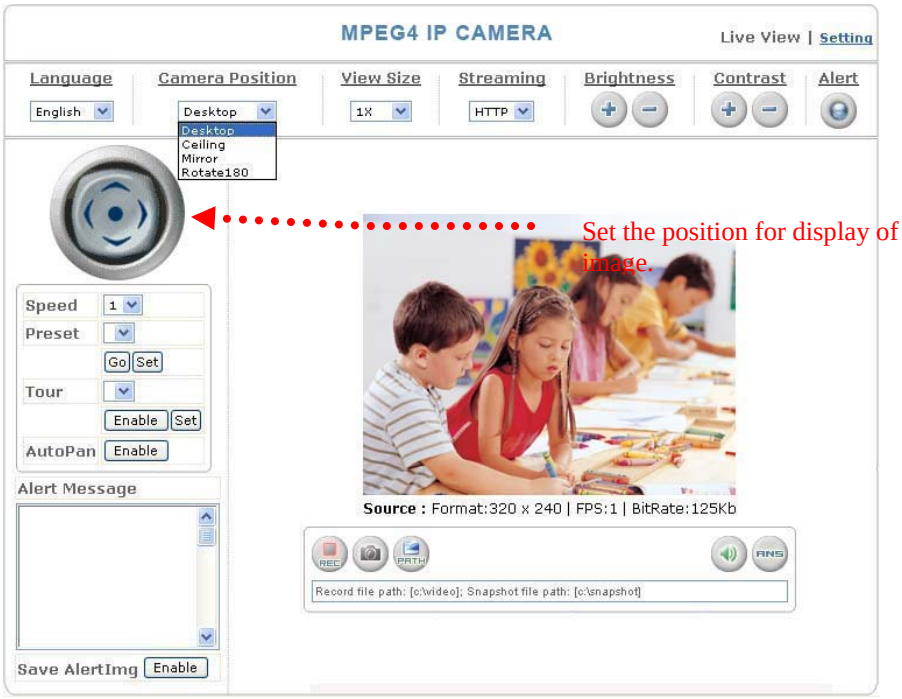
8. Language: selects a UI language

Tour languages are available: English, Simplified Chinese, Traditional Chinese and Japanese.



9. Camera Position: sets the position for display of the image

Desktop: Normal image (displays on the desktop; default value)
Ceiling: Upside-down image
Mirror: Mirror image
Rotate 180: Mirrored and upside-down.



10. View Size: selects the size of the image

Select the size of the image from 0.5 to 4 X.

11. Streaming: sets the video stream protocol (HTTP is recommended**)**

This product provides three different video streaming protocols: UDP, TCP, and HTTP. HTTP is recommended because it allows the video stream to go through the firewall. (Refer to Setting/Basic Setting/Network/Streaming for more information).

UDP: provides the fastest but most unreliable transmission service. Video steams are transmitted through UDP Port (50000~60000 by default) to ensure the fastest image transmission. However, video fragment or mosaics may occur due to poor transmission quality.

TCP: provides reliable data transmission. Video steams are transmitted through RTSP Port (554 by default) to avoid video fragment or mosaics due to poor transmission quality.

HTTP: Video streams are transmitted through HTTP Port (80 by default) to ensure passing through firewalls.

MPEG4 IP CAMERA
Live View | Setting
Language
English
Camera Position
Desktop
View Size
1X
Streaming
HTTP
UDP
TCP
HTTP
Brightness
Contrast
Alert
Speed
1
Preset
Go
Set
Tour
Enable
Set
AutoPan
Enable
Alert Message
Save AlertImg
Enable
Source : Format:320 x 240 | FPS:1 | BitRate:125Kb
REC
PATH
ANS
Record file path: [c:\video]; Snapshot file path: [c:\snapshot]
Select a video stream protocol

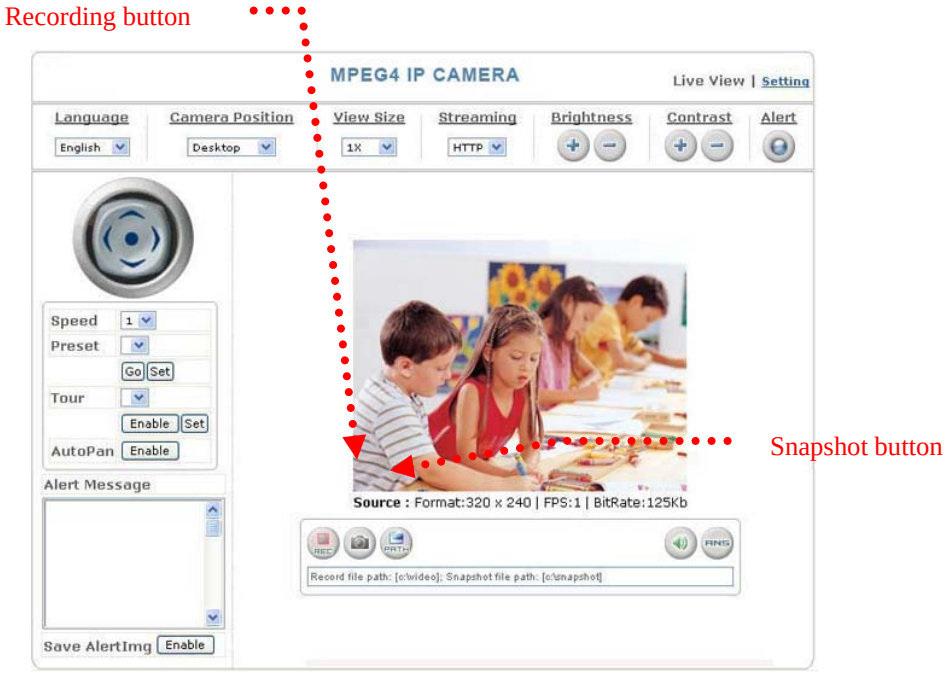
12. Brightness: adjusts video brightness / Contrast: adjusts video contrast

Press + (increase) or - (decrease) from the setting window to adjust the brightness or contrast of the image.

Adjust brightness/contrast of the image

13. REC: executes the video recording function

Click this button to start video recording and save the image file in the preset directory (C:\video). A red mark appears at the bottom left corner of the image when the recording function is running.

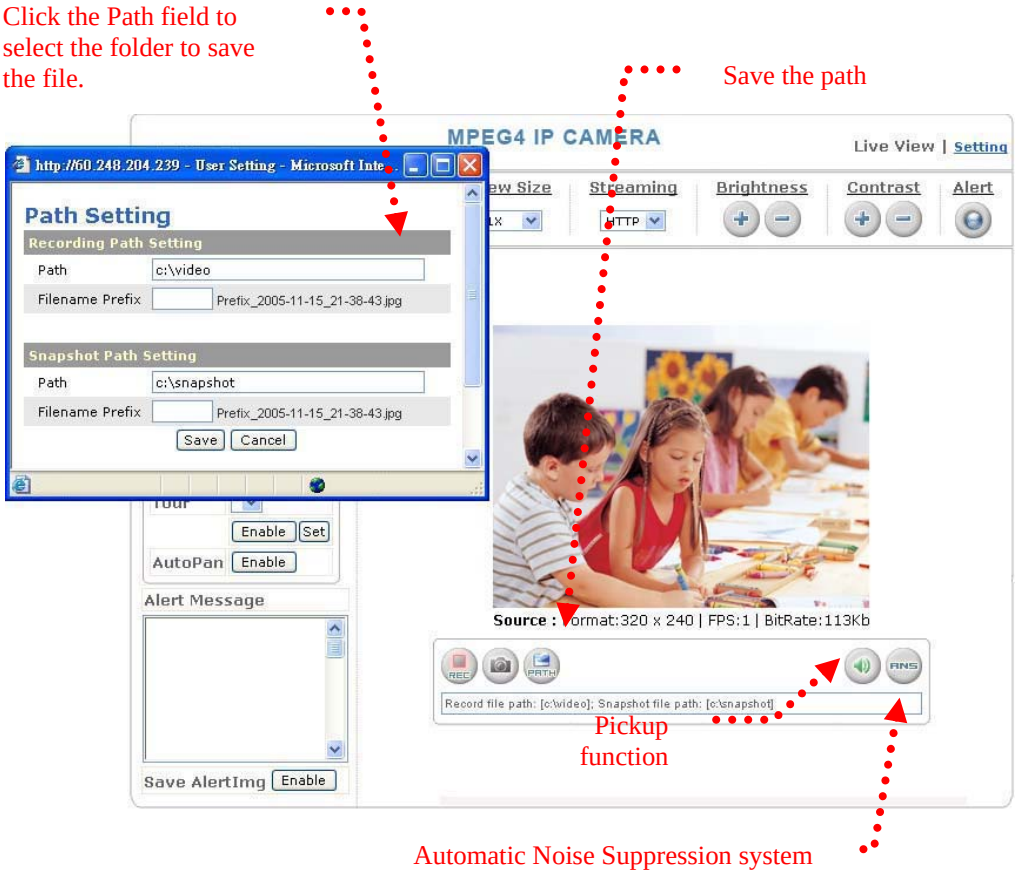


14. Snapshot: executes the snapshot function

Click this button to capture an image and save it to the preset directory. (C:\snapshot).

15. Path: sets the save path and name for recorded images and snapshots.

The filename is the recording date by default. You can identify the file by prefix of the filename.



16. Audio On/Off: turns on/off the pickup function

Click the button to mute the sound from the built-in microphone. A cross-out mark appears on the speaker icon to indicate the mute status.

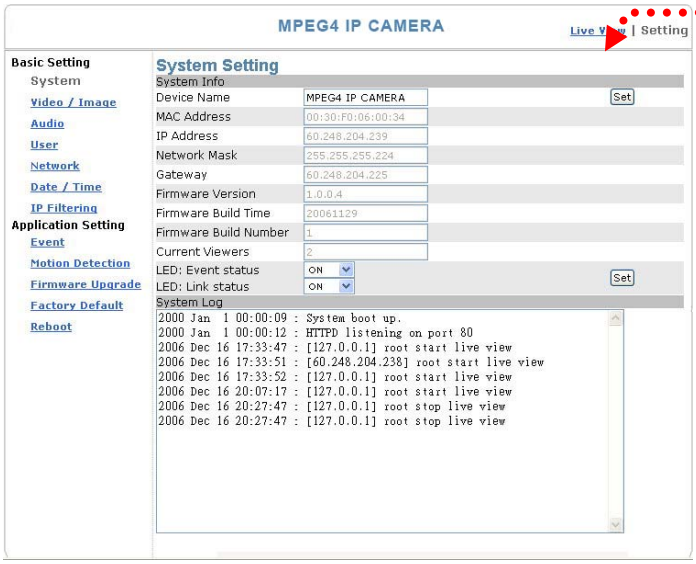
17. ANS: Automatic Noise Suppression system. (The ANS function is enabled by default and it is recommended to keep this function enabled.)

This function can suppress background noise around the camera (such as regular fan noise). Click the button to disable the ANS function. A cross-out mark appears on the ANS icon to indicate the noise suppression status.

System Settings

System setting contains basic and application settings. The basic setting is executed for basic system information, transmission speed, audio/video code, user authorization, date/time, and IP filter, while the application setting is executed for event triggering definition and other relevant settings, definition of the motion detection area, firmware update, reset to factory default, and reboot.

Basic Settings



Basic Setting > System (System info)

- **Basic Setting > System > System Info**

  Device Name: You can set the name for your camera here. Click Set to complete the setting.

  MAC Address, IP Address, Network Mask, and Gateway: Network information.

  Firmware: Firmware version information.

  Current Viewers: The number of viewers who are currently accessing the video stream.

  LED: Event status: You can set the LED display mode (ON, OFF, Flash) here.
  - ON: The LED flashes when any motion detection or alert trigger is identified.
  - OFF: LED is turned off.
  - Flash: LED flashes according to the user-defined interval.

  LED: Link status: You can set the LED display mode (ON, OFF, Flash) here
  - ON: The LED lights up green when a video stream is detected. Otherwise, it does not activated.
  - OFF: LED is turned off.
  - Flash: LED flashes according t o the user-defined interval.

- **Basic Setting > System > System Log**

  The administrator can view all login information of this camera, including boot record, video streaming mode, login IP, changes, and the date/time information. You can copy the entries to a Word document and save them manually. Please

note that all information is deleted when you turn off the machine.

Basic Setting >Video/Image

Basic Setting > Video Image > Video Image

- **Basic Setting > Video / Image > Video Image > 3GPP**

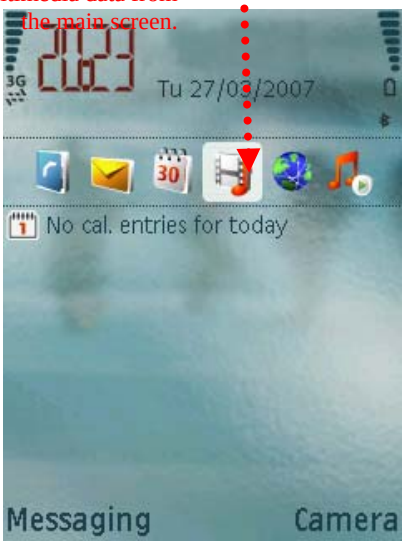
  To view the camera image using a 3G cellular phone, click Enable to enable the 3GPP mode. (Note: When the 3GPP mode has been activated, all relevant parameters are set automatically and cannot be changed. This is for the sake of compatibility).

To use the 3GPP function, the following requirements must be met. Contact your telecom company to learn more about the connection conditions):

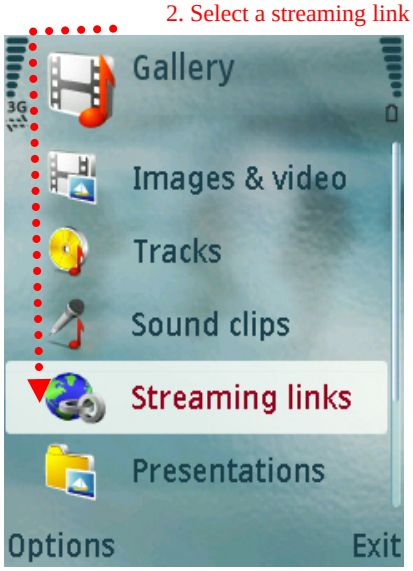
1. 3G phone: Your cellular phone functions properly and supports 3G service. The compatible cellular phones that have passed our test are: Nokia 6630, Nokia N73, Wibo WinII, Nokia E61, Nokia N70, Nokia N93
2. 3G phone number is available.
3. The 3G wireless networking service is available.
4. The camera has a fixed IP address.
5. The 3GPP mode is activated.

Ex: Nokia N71. Follow these steps to set up your 3G viewing function.

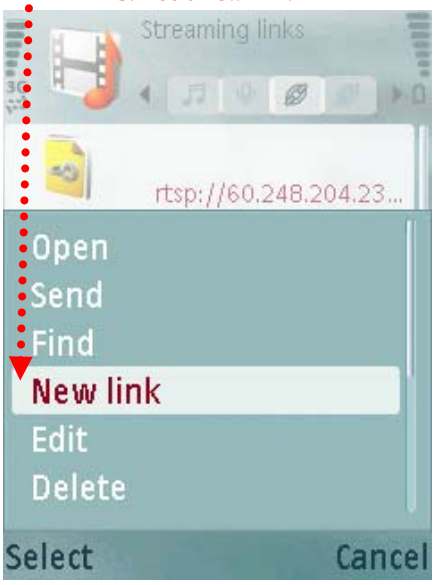
1.Enter multimedia data from the main screen.



2. Select a streaming link



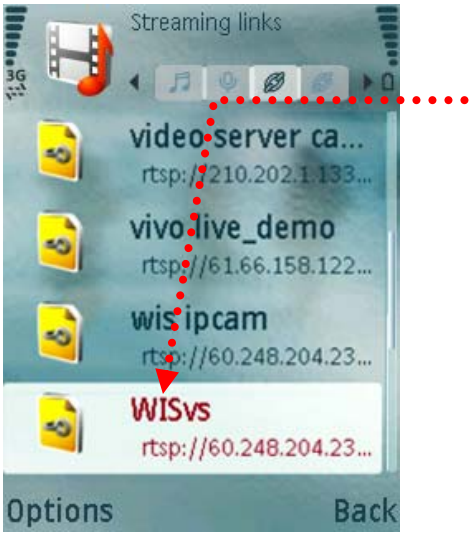
3. Add a new link.



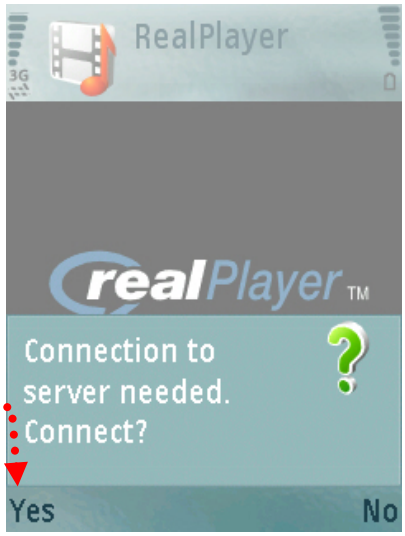
4. Enter the link name.

6. Select OK to save the setting.

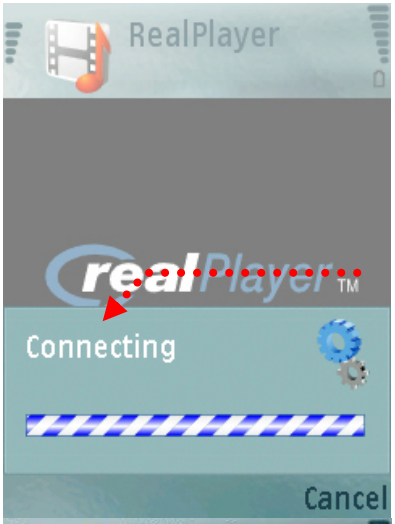
5. Enter the IP address of the camera, e.g. rtsp://xxx.xxx.xxx.xxx:554/cam1/3gpp



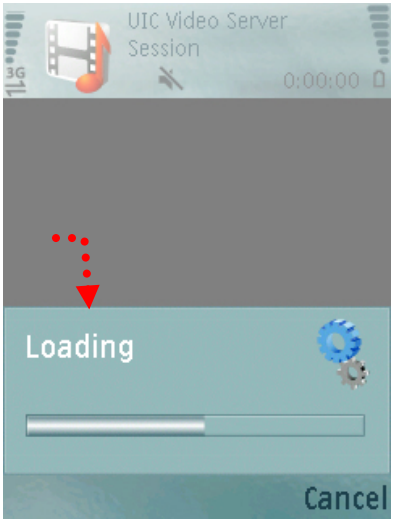
7. Select this stream name to proceed with linking.



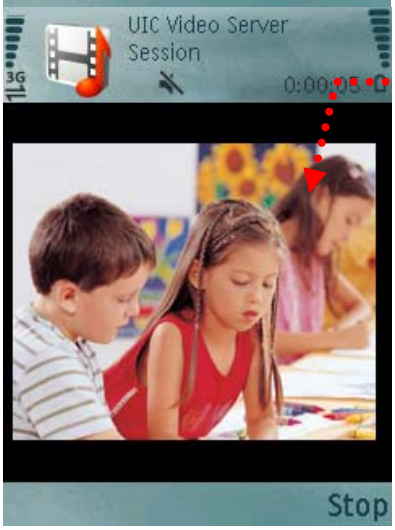
8. Select "Yes" to connect.



9. Connecting.



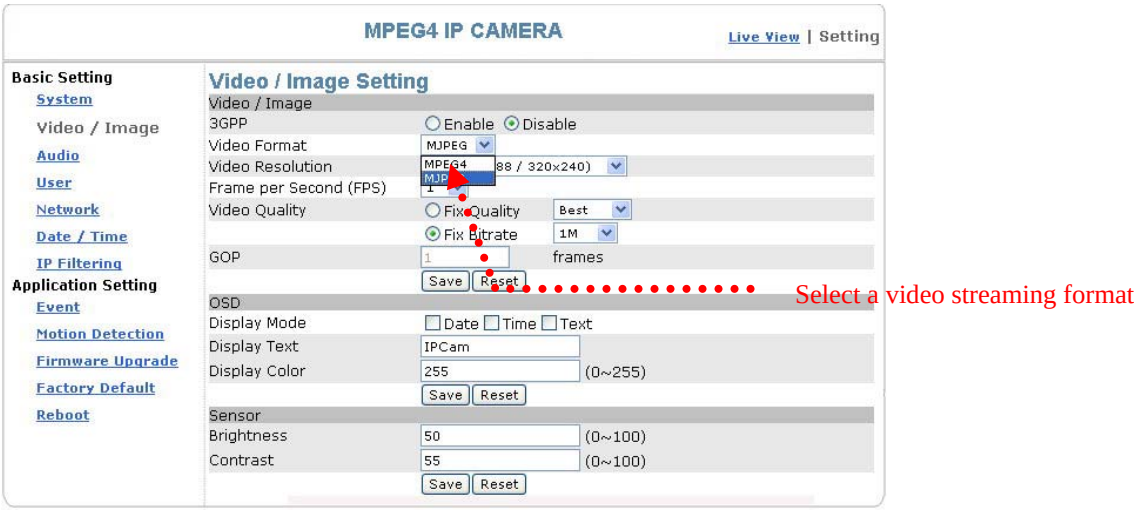
10. Loading the image.



11. Video stream screen .

■ **Basic Setting > Video / Image > Video Image >Video Format**

You can select MPEG4 or MJPEG as the video format. It is recommended to select MPEG4 for real-time browsing to optimize the bandwidth. MJPEG is a good choice for the best resolution when video recording is required for collection of evidence.

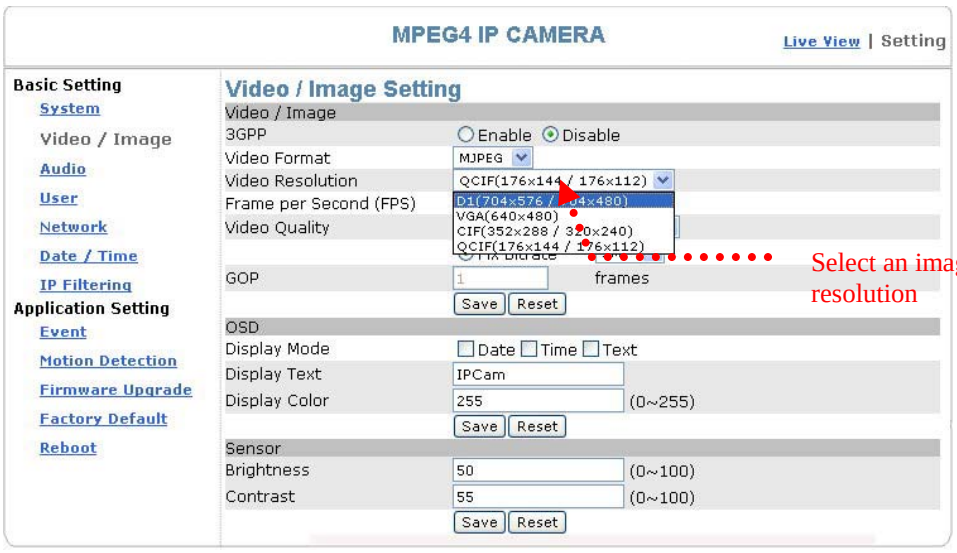


■ **Basic Setting > Video / Image > Video Image >Video Resolution**

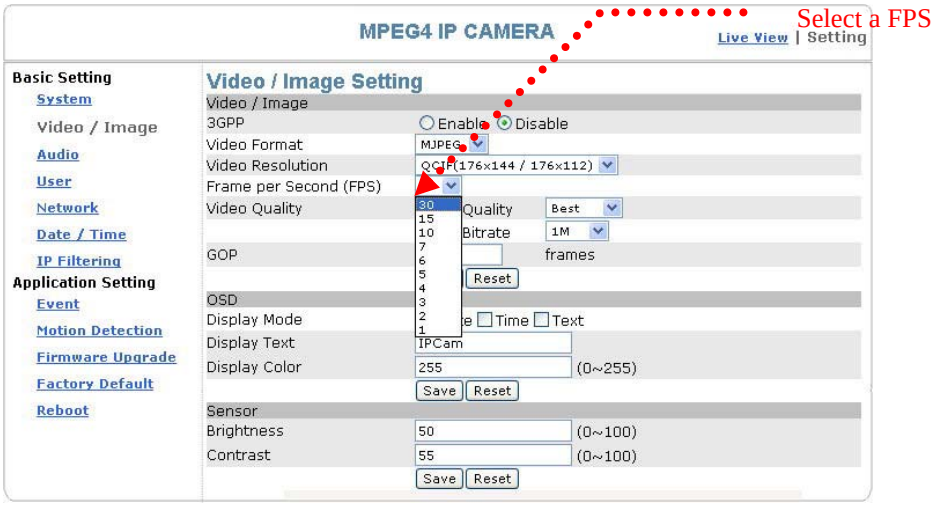
Generally speaking, selection of resolution is dependent on the bandwidth of the network you are using. This product offers different selections for video/audio settings. However, to ensure undisrupted image transmission, you need a higher uploading bandwidth. Generally, it is recommended to use CIF resolution for normal bandwidth. To meet other requirements, refer to Attachment B for more information.

The product offers 4 image resolutions (PAL/NTSC):

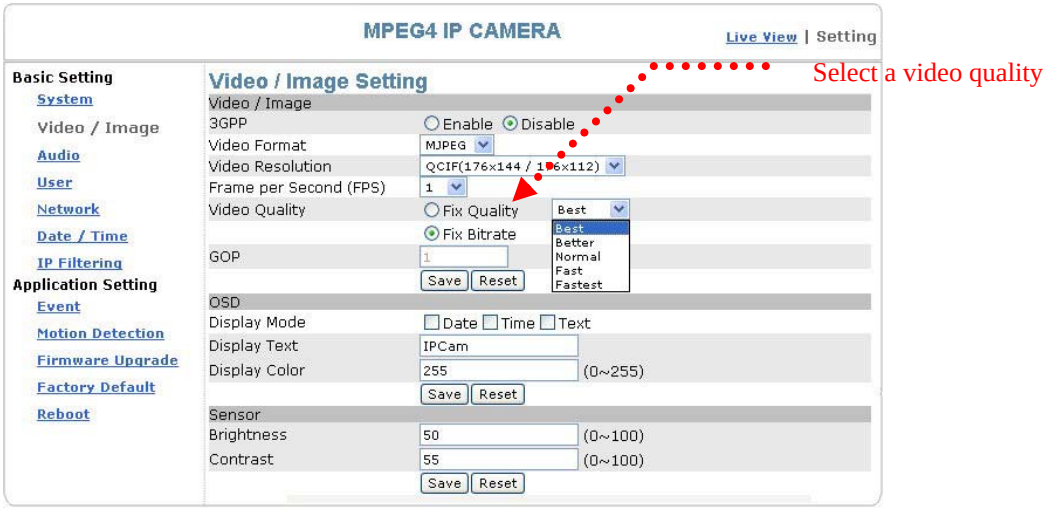
1. D1 (704x576 / 704x480)
2. VGA (640x480)
3. CIF (352x288 / 352x240)
4. QCIF (176x144 / 176x112)



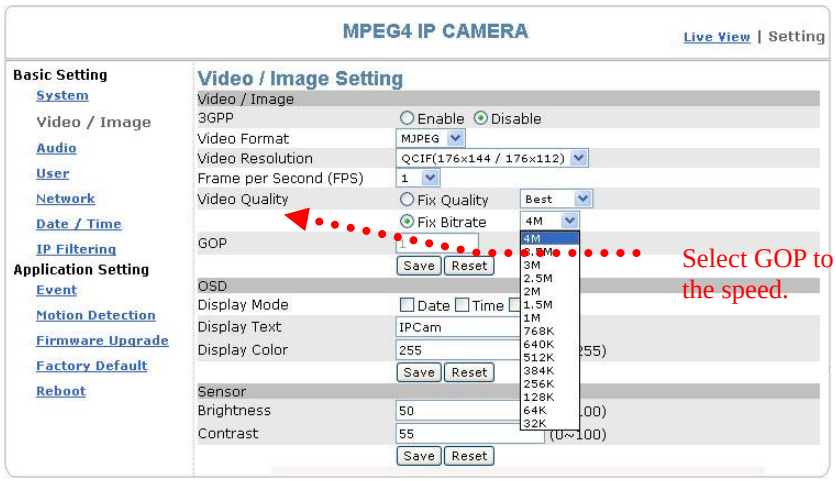
■ **Basic Setting > Video / Image > Video Image >Frame per Second (FPS):**
With NTSC, you can choose 1, 2, 3, 4, 5, 6, 7, 10, 15 or 30 for video resolution
With PAL, you can choose 1, 2, 3, 4, 5, 6, 12 or 25 for video resolution.



■ **Basic Setting > Video / Image > Video Image >Video Quality**
You can select Fix Quality (resolution priority) or Fix Bitrate (fluency priority) at the same bandwidth.
Five options are available for your choice: Best, Better, Normal, Fast, and Fastest.



16 transmission speeds ranging from 32K to 4M are available in the Fix Bitrate mode. The higher the transmission speed, the better the quality and fluency.



GOP provides users with the function to set the pages of the I Frame and P Frame to be transmitted in the MPEG4 mode. Basically, the I Frame page contains the entire picture and needs higher bandwidth, while the P Frame page only contains the parts that are different from the I Frame and need lower bandwidth. Hence, when you need to transmit the pages without disruption in a normal network environment, you can set up a higher GOP. For example, if GOP 25 is selected, 24 P Frame pages will follow 1 I Frame page, and so forth. However, packets may be lost when they are transmitted in a congested network environment. In this case, the following P Frame pages may bring about disruption of the transmission because they lose the reference upon which the difference from the I Frame is identified. You may change GOP to 10 with this concern to avoid disruption of the transmission. The GOP is 15 by default.

Basic Setting > Video Image > OSD

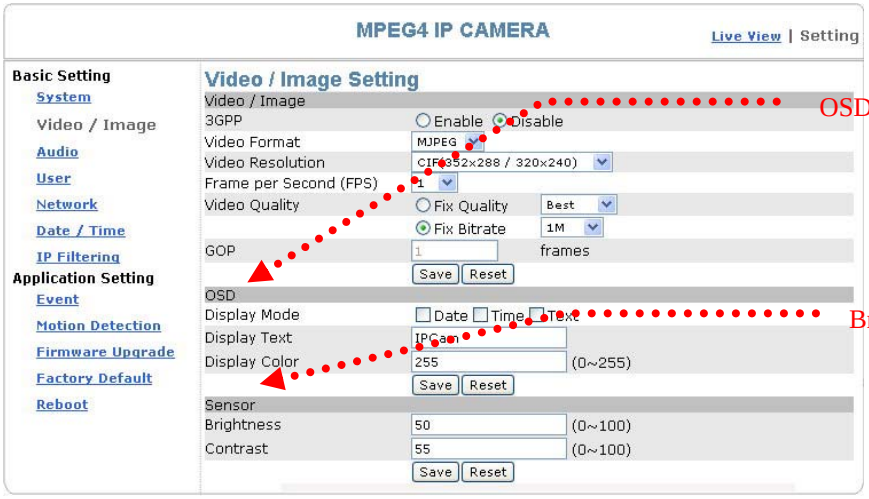
You can set to display the date, camera name and other information on the screen.

- **Basic Setting > Video Image > OSD > Display Mode**
  You can select to display the date (Date), time (Time) or text (Text).
- **Basic Setting > Video Image > OSD > Display Text**
  You can key in the text to be displayed on the screen (Ex.: Lobby IP Cam)
- **Basic Setting > Video Image > OSD > Display Color**
  256 colors and tones from 0 (deepest black) to 255 (lightest white) are available for display of the text.

Basic Setting > Video Image > Sensor (brightness/contrast adjustment)

You can adjust the brightness and contrast here.

- **Basic Setting > Video Image > Sensor > Brightness**
  You can adjust the brightness from 0 (darkest black) to 100 (brightest white).
- **Basic Setting > Video Image > Sensor > Contrast**
  You can adjust the contrast from 0 (max. contrast) to 100 (min. contrast)



OSD setting

Brightness/contract adjustment

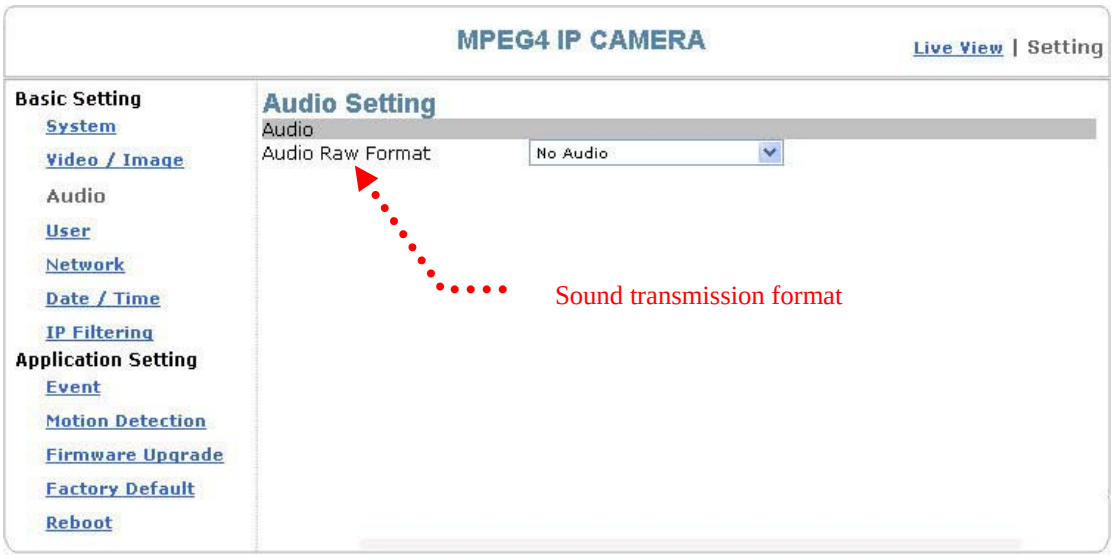
Date, time, and text display

Source : Format:352 x 288 | FPS:25 | BitRate:520Kb

Basic Setting > Audio (Sound)

Basic Setting > Audio > Audio (sound setting)

- **Basic Setting > Audio > Audio > Audio Raw Format**
  You can select No Audio or PCM. When you select No Audio, the sound transmission from the built-in microphone pauses. When you select PCM, the sound transmission resumes. The factory default is PCM.



Basic Setting > User(User)

The administration of the camera can set up access privileges by administrator, operator, and viewer to ensure the security and control of the camera. The access privileges and setting steps are described as below.

Basic Setting > User > User List (access privilege list)

The access privileges of the administrator, operator, and viewer are listed as follows. The administrator has the right to define the privilege for each user depending on requirements.

User		Administrator	Operator	Viewer
Live View		v	v	v
System Setting		v	v	
Video Setting		v	v	
	3GPP	v	v	
Audio Setting		v	v	
Date / Time Setting		v		
User Setting		root		
Network Setting		v		
	Wireless	v		
	DDNS setting	v		
	PPPoE setting	v		
	Streaming	v		
	UPnP	v		
	SMTP	v		
	SAMBA	v		
	Notification	v		
IP Filter setting		v		
Event Setting		v	v	
	schedule setting	v	v	
	event server	v	v	
	trigger setting	v	v	
Motion Setting		v	v	
Firmware Upgrade		root		
Factory default		v		
Reboot Setting		v		
PTZ Control		v		User with PTZ privilege

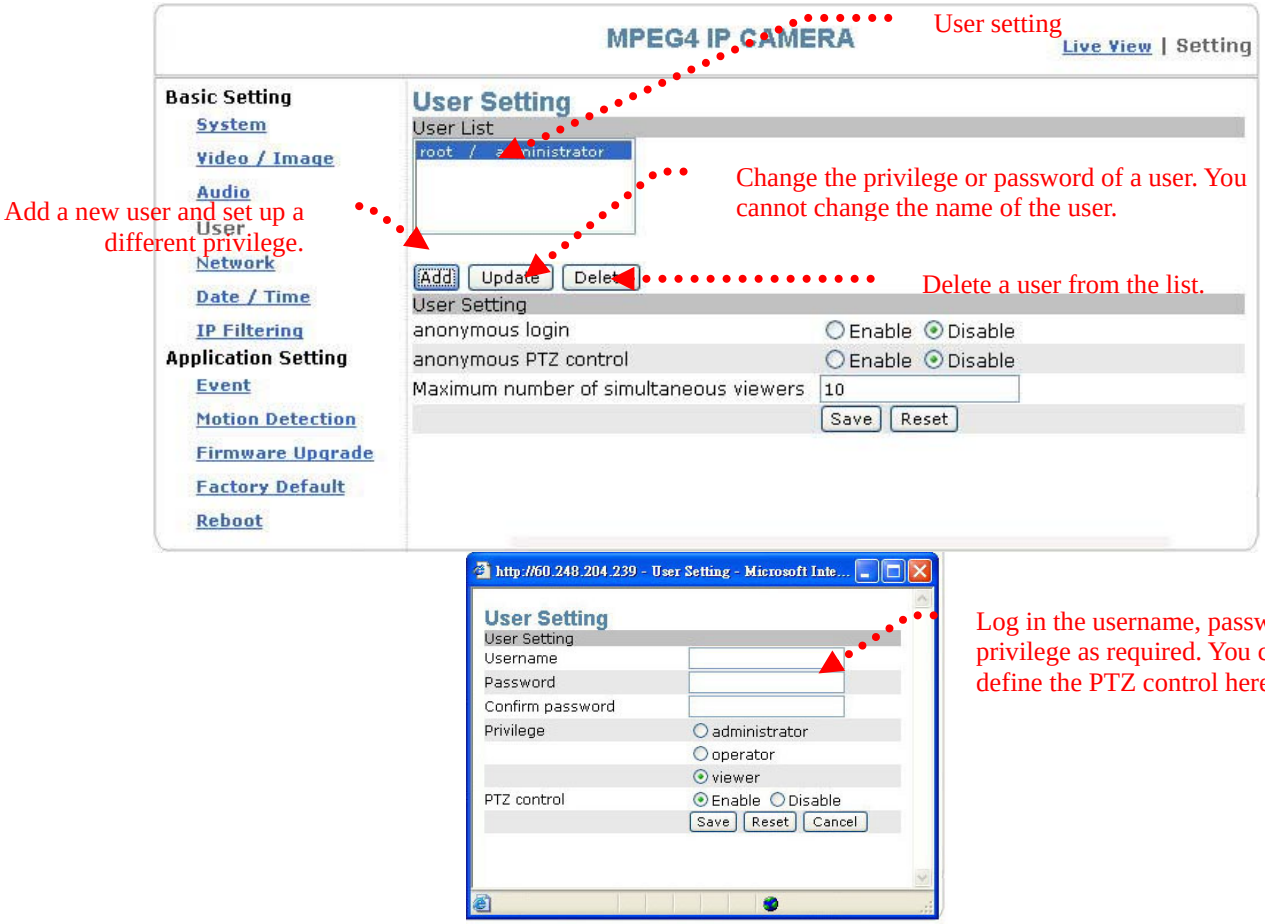
Steps: Click Add (to add a new user), Update (to change the privilege or password of a user on the list), or Delete (to delete a user from the list) and complete required fields. Then Click "Save" to complete the setting.

Options:

Add: Add a new user and set up a different privilege.

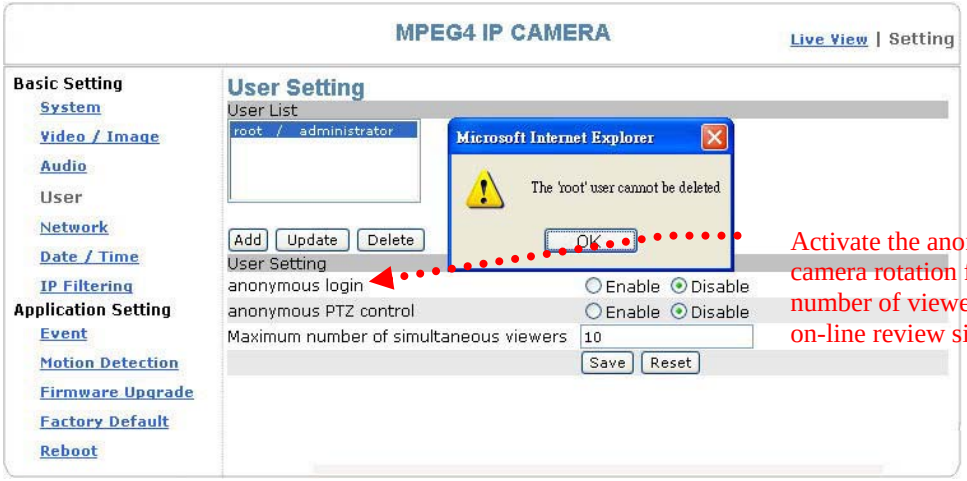
Update: Change the privilege or password of a user. You cannot change the name of the user.

Delete: Delete a user from the list.



Basic Setting > User > User Setting (privilege setting)

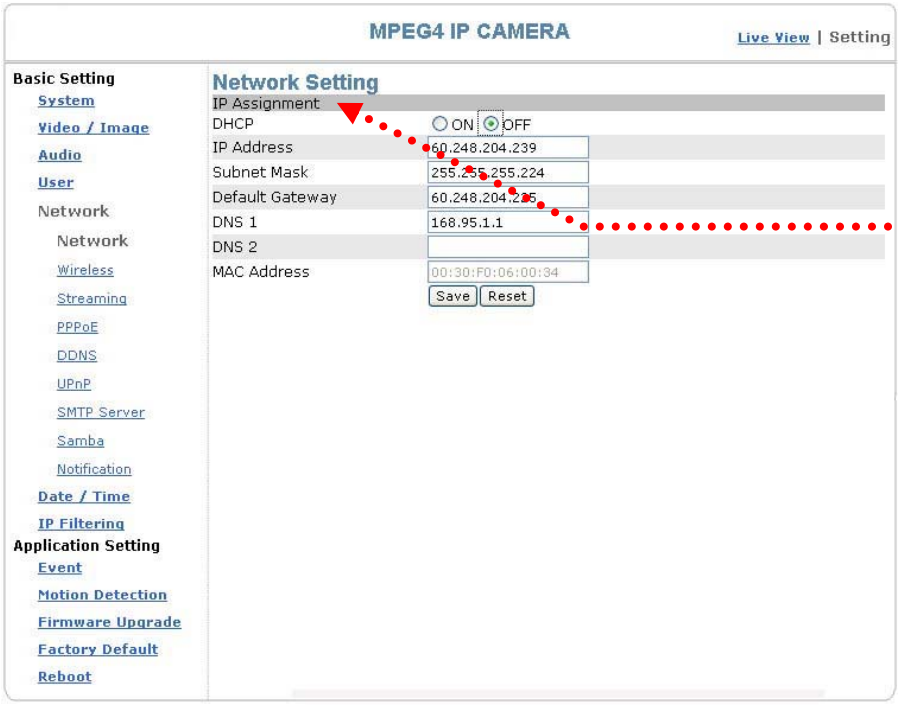
For special business situations, this product allows you to log in to browse without the need of keying in your username and password. For this purpose, you need to check “Enable” at Anonymous Login. To allow the user to control the camera, you need to check “Enable” at Anonymous PTZ Control. However, “Disable” for both options is recommended for the sake of security. Depending on the bandwidth and requirements, a limit up to 10 viewer who are allowed to view the camera simultaneously can be defined.



Basic Setting > Network (Network Settings)

Basic Setting > Network > Network (cable network setting page)

■ **Basic Setting > Network > Network > IP Assignment**



Cable network setting page

DHCP setting:

DHCP(Dynamic Host Configuration Protocol) is a protocol that enables automatic assignment of TCP/IP information to the client. Each DHCP client connects to the DHCP server to access its network setting information, including IP address, gateway, and DNS server.

The IP address of the camera is 192.168.0.20 by default when DHCP is "OFF". When you select "DHCP ON" and access the DHCP network environment, the camera will automatically send a DHCP packet to request an IP address. This IP address is assigned automatically from the DHCP server on the network. No additional settings are required for this page unless you need to change the network configuration. The DHCP status of the camera is "OFF" by default.

Other settings:

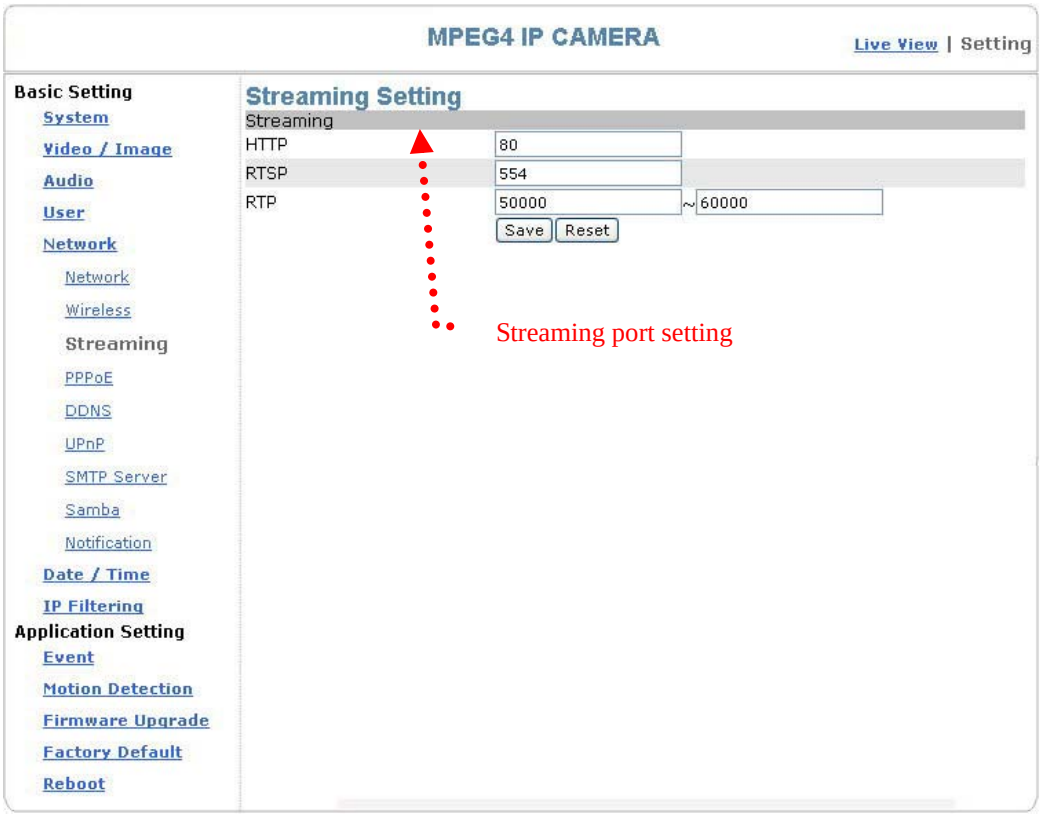
For IP address, Subnet mask, Default gateway, DNS 1, and DNS 2, the DHCP server will assign these values automatically when DHCP is in "ON" status; otherwise, you need to key in the values manually.

Note: Where no IP address is assigned from the DHCP server, the system will set the Link-Local Address automatically. Chunghwa Telecom DNS: 168.95.1.1

Basic Setting > Network > Streaming (steaming Setting)

Setting of the video steaming port (HTTP and factory default are recommended)

1. HTTP: Port 80 can pass through most firewalls. Video streams are transmitted through HTTP Port (80 by default) to ensure passage through firewalls.
2. RTSP: Port 554 uses a fixed port (i.e. TCP) or can be defined by users to ensure reliable data transmission. Video streams are transmitted through RTSP Port (554 by default) to avoid video fragment or mosaics due to poor transmission quality.
3. RTP: Port 50000 to 60000 are UDP ports and can be defined by users. They provide the fastest but also most unreliable transmission service. Video streams are transmitted through UDP Port (50000~60000 by default) to ensure the fastest image transmission. However, video fragment or mosaics may occur due to poor transmission quality.



Basic Setting > Network > PPPoE (dial-up networking setting)

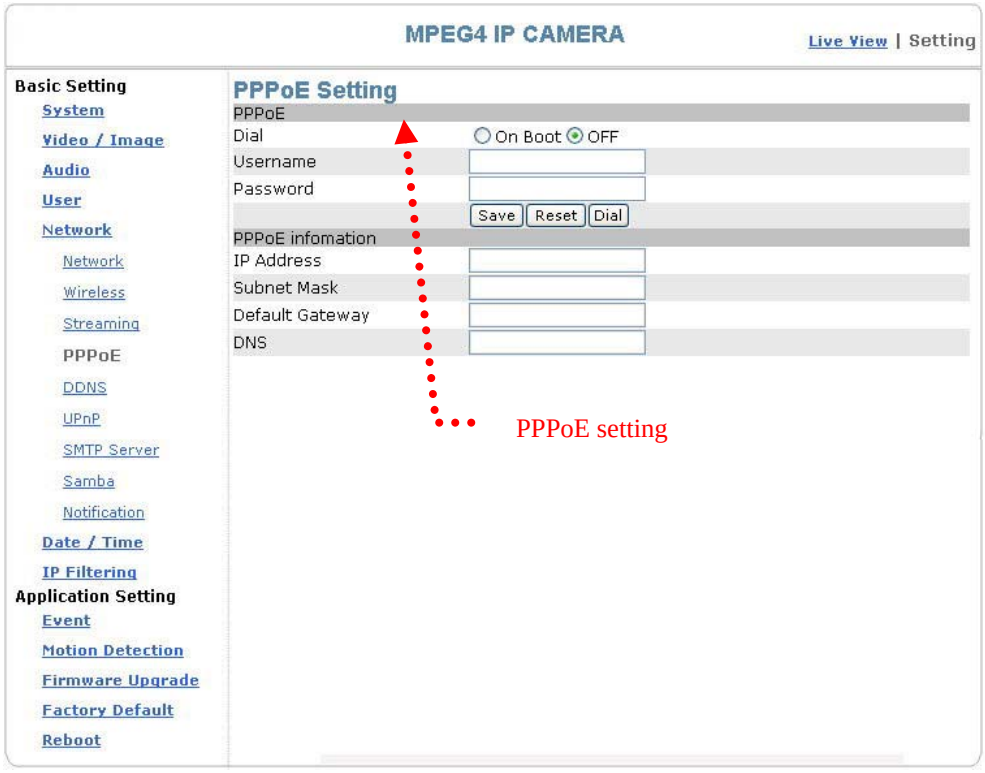
PPPoE: Point-to-Point Protocol over Ethernet is a protocol that supports access to a high-speed wideband network using a PC and a wideband modem (such as xDSL, Cable, Wireless modem). The user need only to equip the PC with an Ethernet card and apply to an ISP (such as HiNet) and an ADSL provider (such as Chunghwa Telecom) for ADSL service to roam the Internet through ordinary twisted copper wires.

PPPoE: Point to Point Protocol over Ethernet is applicable to networking via a xDSL or cable modem. PPPoE setting must be executed in the LAN environment for your PC to connect to ADSL. Follow the steps below to complete the setting:

1. Dial: You can select whether or not to dial when you boot the machine.
2. Use DHCP or fixed IP for connection to the LAN environment.

3. Key in the IP address of the camera and enter "PPPoE Setting" following the route Setting ➔ Basic Setting ➔ Network➔ PPPoE.
4. Key in the xDSL "Username" and "Password" acquired from your ISP. Click Save to confirm the setting.
5. Where the ADSL modem and the camera is connected via a switch-hub, you can press “Reboot” or restart the machine manually to try PPPoE dialing when the setting of the camera has been completed.
6. To observe the new IP address acquired when PPPoE dialing has been executed successfully, follow the route Setting ➔ Basic Setting ➔ Network➔Notification for the IP information. You can acquire the new IP address via SMTP, FTP, and HTTP. Refer to the “Notification Setting” page for more information.

Note: You can use the DDNS function to access the camera. Refer to the “DDNS Setting” page for more information.



- **Basic Setting > Network > PPPoE > PPPoE**
  Dial: You can select whether or not to dial when you boot the machine (On Boot or Off).
  Username: Enter the username provided by your ISP.
  Password: Enter the password.
- **Basic Setting > Network > PPPoE > PPPoE Information**
  IP Address: The IP address acquired when dialing has been executed successfully.
  Subnet Mask: The subnet mask information acquired when dialing has been executed successfully.
  Default Gateway: The gateway information acquired when dialing has been executed successfully.
  DNS: The ISP domain name acquired when dialing has been executed

successfully.

Basic Setting > Network > DDNS (Dynamic Domain Name Server Setting)

The IP address (Ex. 210.168.0.22) is like a telephone number, while the website address is like a name in an address book. The DDNS allows the user to access the website by entering the name of the website without memorizing a bunch of cold numbers.

When you apply for an Internet service, you will have at least one IP address from your ISP that is either fixed or dynamic. Most of the ADSL service providers will give you a dynamic IP for ADSL environments, which means your IP address will constantly change each time you connect to the Internet. As a result, users from WAN environments will have much difficulty finding the correct IP address. The DDNS (Dynamic DNS service) is created for exactly this kind of moment. By updating your WAN IP address each time you connect to the Internet, the DDNS helps you locate your website and access your website easily. You can find a lot of free DDNS service providers on the Internet, such as www.no-ip.com and www.DynDNS.org.

Some gateway-routers can directly communicate with DDNS. In this case, you may directly enter your DDNS account on the setting page in the Internet router, and then the router will update your WAN IP status whenever it is changed and report to the DDNS. If your router does not support direct communication with the DDNS, you can download a small application program on the DDNS service page to help you update your WAN IP.

Item Description:

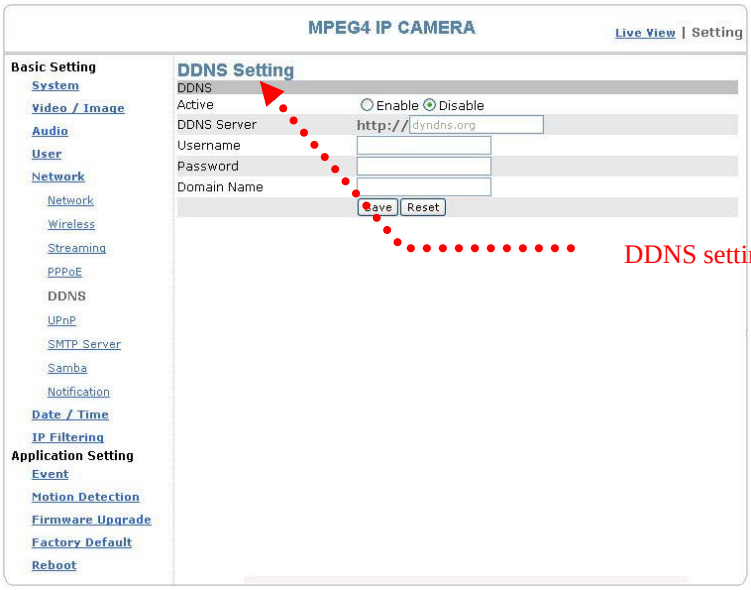
Active: enables/disables DDNS

DDNS Server: currently we only support http://dyndns.org. This is a free domain name server provided by DynDNS. You may log on this website for relevant information and apply for free domain names.

Username: your account for the domain name you applied for

Password: your password for the domain name you applied for

Domain Name: the domain name you applied for.


MPEG4 IP CAMERA
Live View | Setting
Basic Setting
System
Video / Image
Audio
User
Network
Network
Wireless
Streaming
PPPoE
DDNS
UPnP
SMTP Server
Samba
Notification
Date / Time
IP Filtering
Application Setting
Event
Motion Detection
Firmware Upgrade
Factory Default
Reboot
DDNS Setting
DDNS
Active
Enable
Disable
DDNS Server
http://
dyndns.org
Username
Password
Domain Name
Save
Reset
DDNS setting

Basic Setting > Network > UPnP (Universal Plug and Play)

If you connect your camera to a router, IP allocator, or wireless AP, your camera will possibly be blocked by the NAT and can't be located on the Internet. To penetrate the firewall, activate the supportive item- UPnP. The Link URL shows the external IP address and the port of the router. Enter the IP address in the Internet Explorer to penetrate the NAT.

- **Basic Setting > Network > UPnP > UPnP Device**

  Active: yes (enable)/no (disable)

  Device Name: the name of the UPnP device

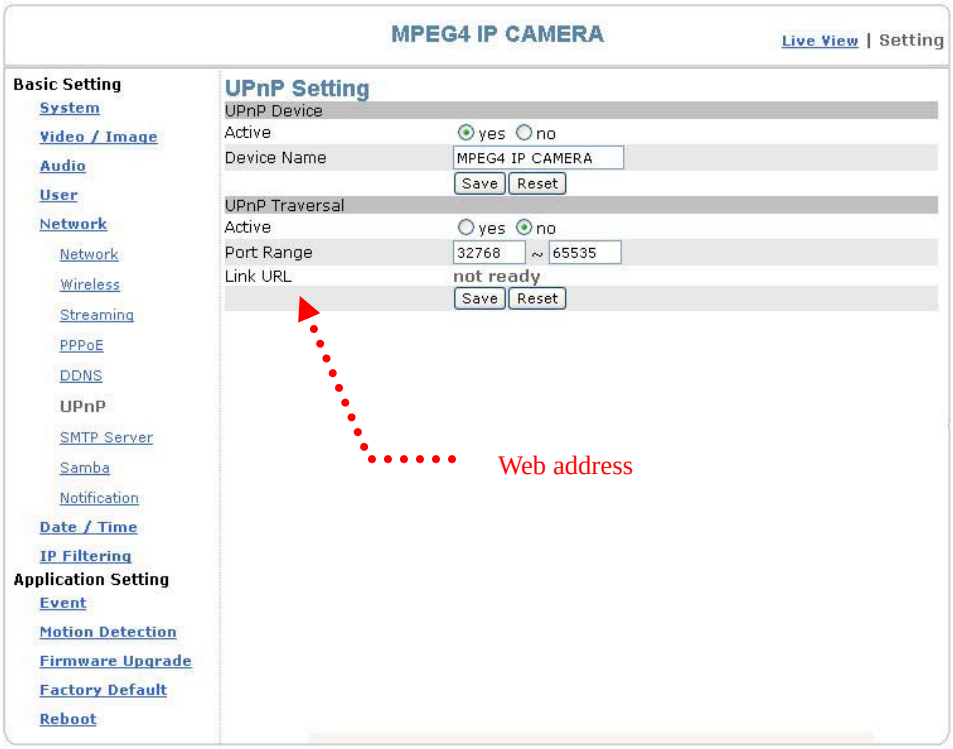
- **Basic Setting > Network > UPnP > UPnP Traversal**

  Active: yes (enable)/no (disable)

  Port Range: the range of the usable ports, from 32768 to 65535 as default

  Link URL: Uniform Resource Locator, the web address

  Click "Save" to confirm when you finish.

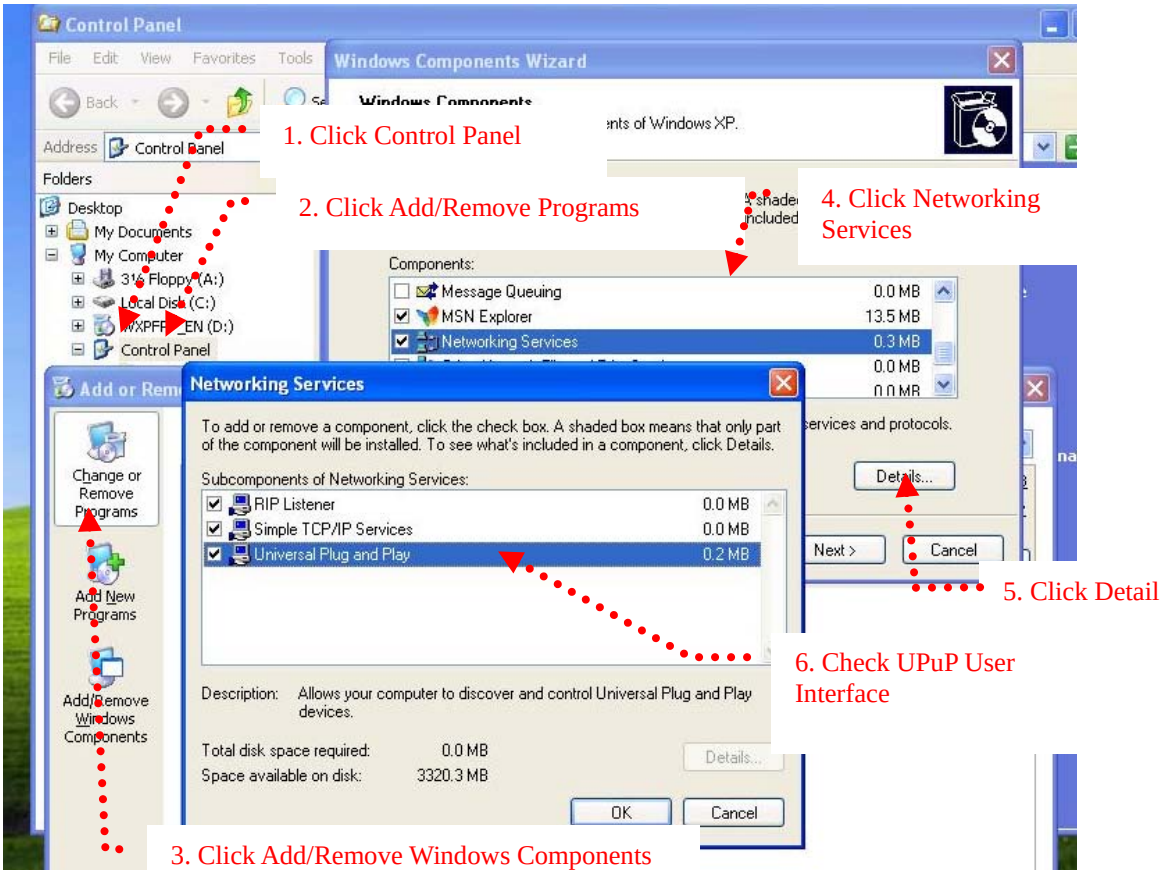


UPnP setting

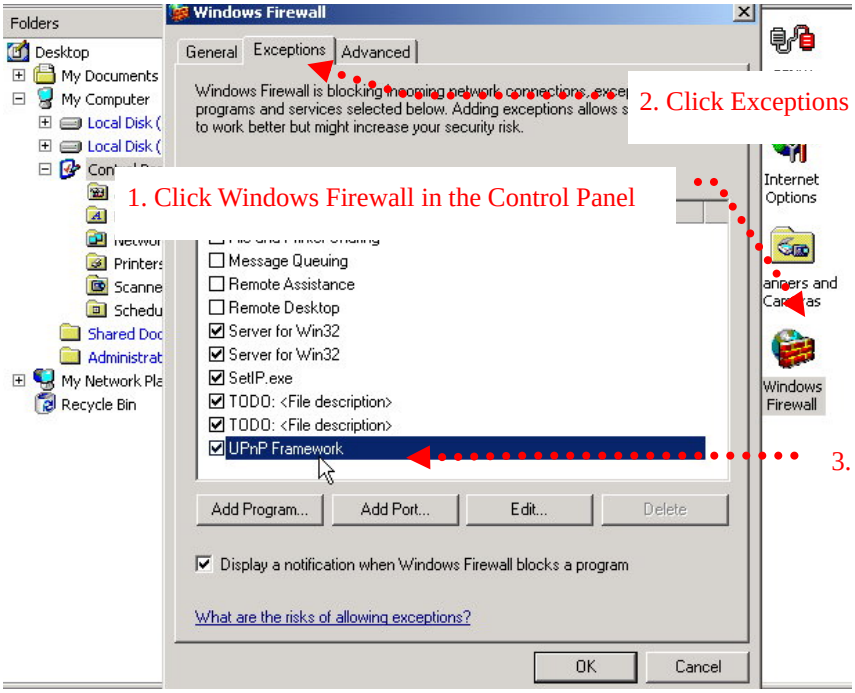
To activate the UPnP function in Windows OS:

Ex: Windows XP:

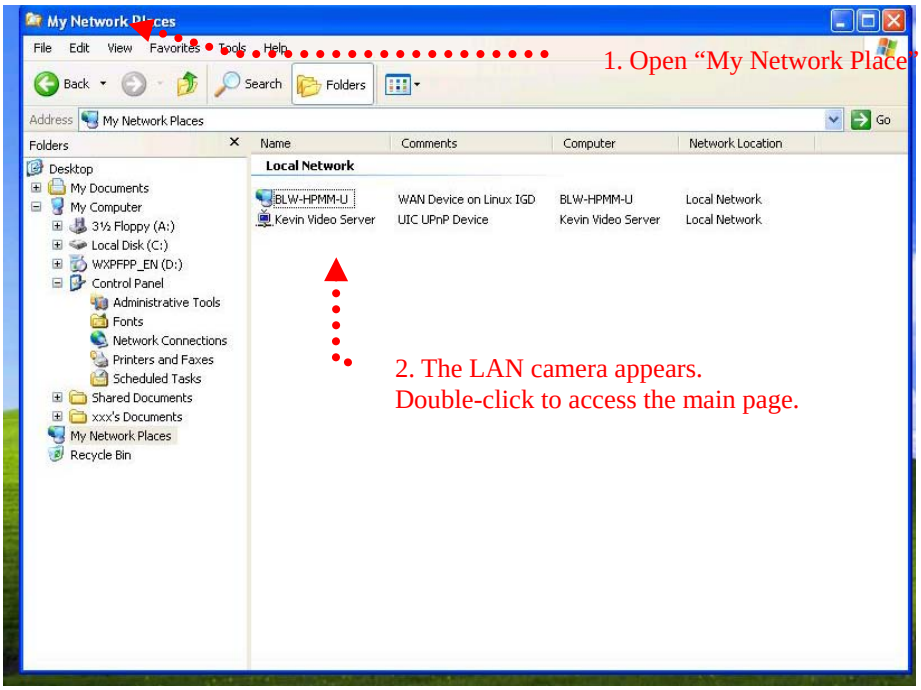
1. Windows component installation.


1. Click Control Panel
2. Click Add/Remove Programs
3. Click Add/Remove Windows Components
4. Click Networking Services
5. Click Detail
6. Check UPuP User Interface
Control Panel
Windows Components Wizard
Networking Services
To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Subcomponents of Networking Services:
RIP Listener 0.0 MB
Simple TCP/IP Services 0.0 MB
Universal Plug and Play 0.2 MB
Description: Allows your computer to discover and control Universal Plug and Play devices.
Total disk space required: 0.0 MB
Space available on disk: 3320.3 MB
Components:
Message Queuing 0.0 MB
MSN Explorer 13.5 MB
Networking Services 0.3 MB
Details...
OK
Cancel
Next >
Change or Remove Programs
Add New Programs
Add/Remove Windows Components

2. Open Windows firewall option


Folders
Desktop
My Documents
My Computer
Local Disk (
Local Disk (
Printers
Scanne
Schedu
Shared Doc
Administrat
My Network Pla
Recycle Bin
Windows Firewall
General
Exceptions
Advanced
Windows Firewall is blocking incoming network connections, exce
programs and services selected below. Adding exceptions allows s
to work better but might increase your security risk.
Message Queuing
Remote Assistance
Remote Desktop
Server for Win32
Server for Win32
SetIP.exe
TODO: <File description>
TODO: <File description>
UPnP Framework
Add Program...
Add Port...
Edit...
Delete
Display a notification when Windows Firewall blocks a program
What are the risks of allowing exceptions?
OK
Cancel
Internet Options
Windows Firewall
1. Click Windows Firewall in the Control Panel
2. Click Exceptions
3. Check UPnP Configuration.

3. View the connection device using “My Network Place”

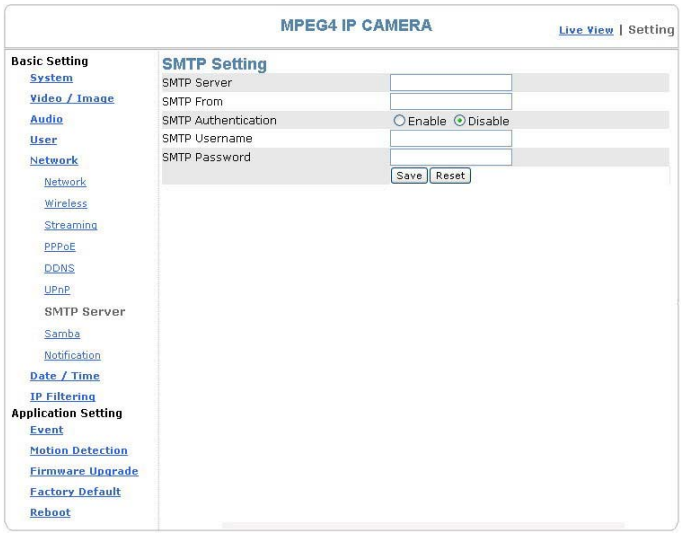


Basic Setting > Network > SMTP Server (mail server setting)

This camera is able to transmit images to a particular email address when a motion detection event occurs or a sensor is triggered. To use this function, a mail server setting for the camera is required.

Enter the following information in sequential order to complete the setting:

- SMTP server: the SMTP server IP address.
- SMTP From: the email of the sender, i.e. xxx@xxx.com
- SMTP Authentication: enables/disables
- User name: the SMTP server username.
- Password: the password of the SMTP server.
- Select “SAVE” to save the setting.


MPEG4 IP CAMERA
Live View | Setting
Basic Setting
System
Video / Image
Audio
User
Network
Network
Wireless
Streaming
PPPoE
DDNS
UPnP
SMTP Server
Samba
Notification
Date / Time
IP Filtering
Application Setting
Event
Motion Detection
Firmware Upgrade
Factory Default
Reboot
SMTP Setting
SMTP Server
SMTP From
SMTP Authentication
Enable
Disable
SMTP Username
SMTP Password
Save
Reset

Basic Setting > Network > Samba

This camera is able to upload the snapshots to a specified shared folder when an event is triggered. To use this function, a Samba setting is required.

Options:
Active: Enable/Disable
Samba Authentication: Enable/Disable
Username: the username
Password: the password
Path: specify the IP address of the computer you want to share with and the file name, i.e. 192.168.0.X/xxx
Shared Folder Size (MB): the total capacity of the folder. Always remember to set the size of the folder to avoid exhaustion of disk capacity.
Max Record File Size (MB): the upper limit of the record file size. The size should not exceed the total capacity of the folder.

Samba setting

Basic Setting > Network > Notification Of IP Address Change (IP address change notice)

This setting is not necessary for a fixed IP. For a dynamic IP, you need to update the IP address every time you connect to the Internet to access the camera. This setting allows you to update the IP address by the automatic notification of IP address change. Choose one of the following three notice options to update the IP address:

1. Notification via SMTP mail server

- **Basic Setting > Network > Notification of IP Address Change > SMTP Notification**

  SMTP Notification: notification via SMTP mail server

  SMTP SendTo: the recipient, i.e. xxx@xxx.com

  SMTP Subject: mail subject

  Select Save to complete and activate your settings.

2. Notification via FTP server

- **Basic Setting > Network > Notification of IP Address Change > FTP Notification**

  FTP Server: FTP Server name.

  FTP Port: FTP port. The default setting is 21 (recommended).

  FTP Upload path: the path to upload files.

  FTP Login name: the name to log in the FTP.

  FTP Login Password: the password to log in the FTP.

  Select Save to complete and activate your settings.

3. Notification via HTTP server

- **Basic Setting > Network > Notification of IP Address Change > HTTP Notification**

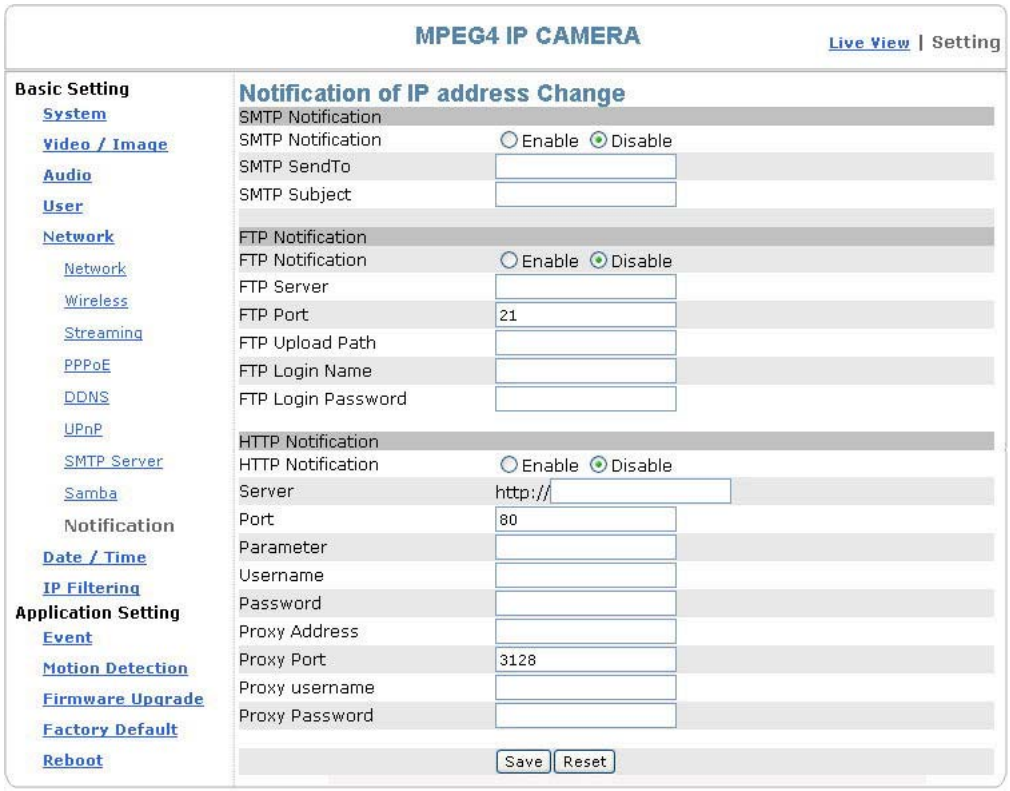
  Server: the address of the server, i.e. http://.

  Port: the port to access HTTP. The default setting is 80 (recommended).

  Parameter: the setting of the parameters, refer to the installation setting of your HTTP server.

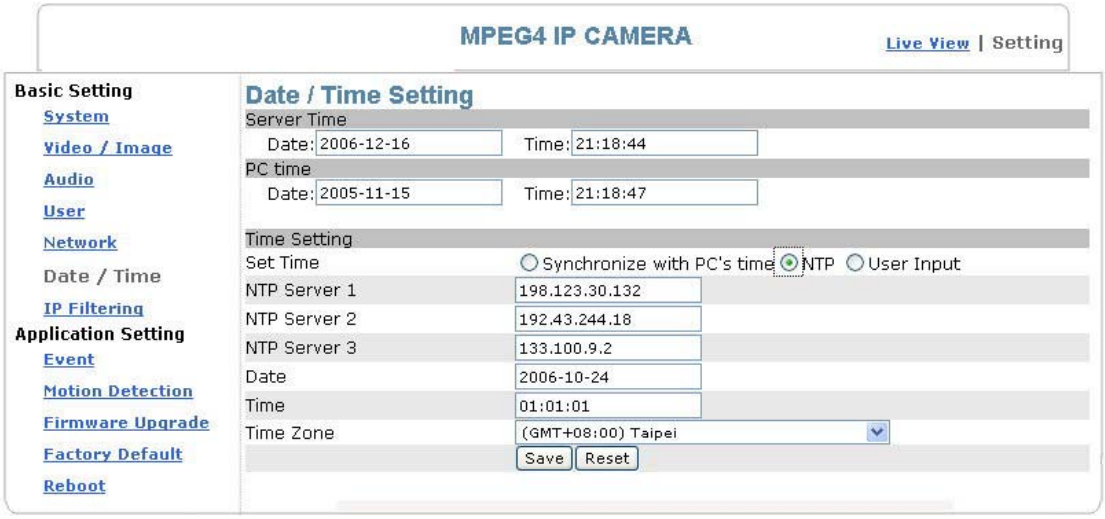
  Refer to the installation setting of your HTTP server for the setting of the parameters (such as Username, Password, and Proxy).

  Select Save to complete and activate your settings.



Notification setting

Basic Setting > Date/Time (date/time setting)



Date/Time setting

- **Basic Setting > Date/Time > Server Time (the date/time of the server)**
- **Basic Setting > Date/Time > PC Time (the date/time of your PC)**
- **Basic Setting > Date/Time > Time Setting (date/time setting)**

There are three ways to synchronize the time.

1. **Synchronize the time with PC's time:**

   The preset method of time synchronization of the camera time with your PC time.

2. **Get Time from an NTP server: synchronize the time with the NTP (Network Time Protocol)**
   - Click on the "NTP" Button
   - Enter the NTP server's IP address.
   - Press "SAVE" to activate it.

   The camera will update its time once obtaining the NTP time.

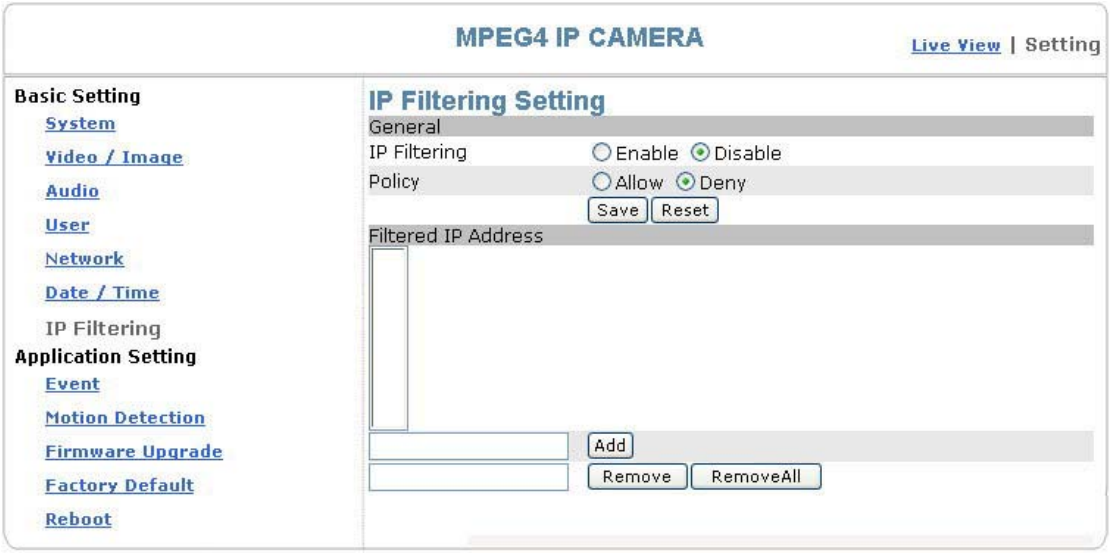
   Note: The default NTP servers are:

   A. NTP Server 1: 198.123.30.132
   B. NTP Server 2: 192.43.244.18
   C. NTP Server 3: 133.100.9.2

3. **Change the time manually:**
   - Click the "User Input".
   - Select the format of date display, i.e. "yyyy/mm/dd" format.
   - Select the format of date display, "hh:mm:ss" by 24 hours format.
   - Select the time zone.
   - Select "Adjust" to adjust time.

Basic Setting > IP Filter

This function filters IP addresses and is able to allow or deny visits from particular addresses/target addresses.



IP filter setting

Basic Setting > IP Filter > General

IP Filtering: enables/disables the IP filter

Policy: allows/denies access

Basic Setting > IP Filter > Filter IP Address (Overview of the set IPs)

Add: enter the IP address you want to allow or deny the access of in the front field.

Remove: removes a set IP addresses

Remove All: removes all the set IP address

Special Attention

Setting rules:

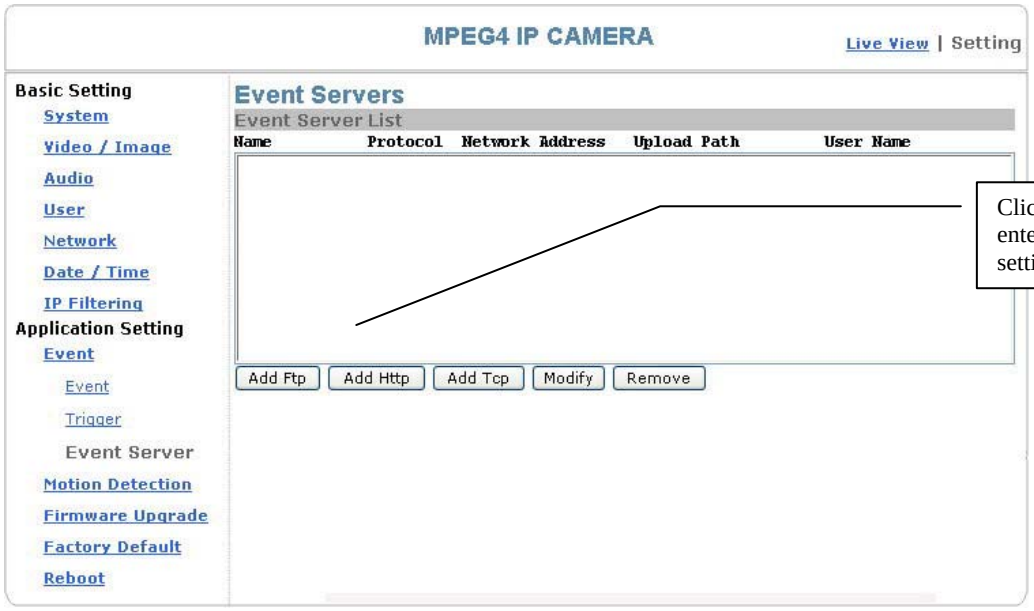
1. Actions that may cause a limited connection are to be denied.
2. Improper use of this function may cause disconnection from Internet. You might need to use hardware reset to reset to the factory default. Please refer to the "Factory Default" for details.

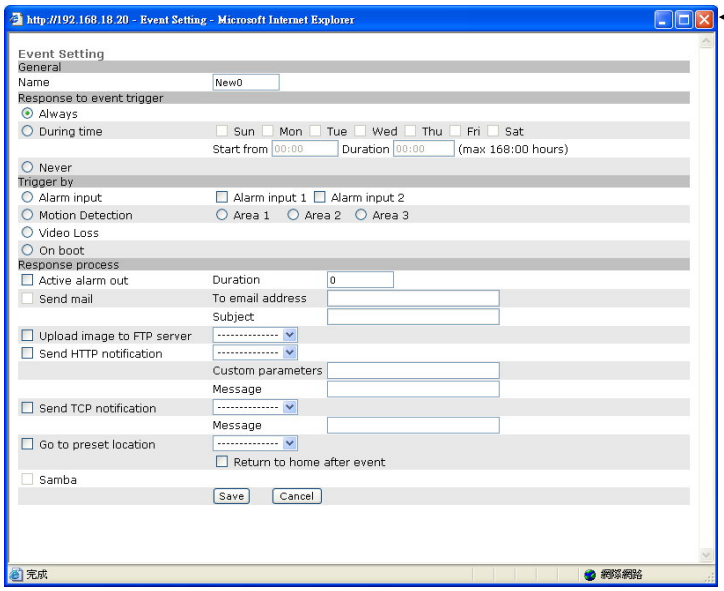
Application Setting

Application Setting > Event (event trigger setting page)

This camera is equipped with intelligent security management functions. It ensures security monitoring by allowing user to define “trigger events” based on particular times and situations, and sets the camera respond to the event.

Application Setting > Event > Event List (trigger event setting)





Add Event: Add Event setting page

Options:

- General:

  Name: Name the trigger event here.

- Response to event trigger: the time setting of the trigger event

  Always: Always monitoring

  During time: Check the date you want to monitor (Sun~Sat) and the duration of monitoring here. For example, if you want to set the camera to monitor from 7 pm after work to 7 am next morning from Monday to Friday, check the boxes from Monday to Friday, enter “19:00” in the “Start From” field, and enter “12:00” in the “Duration” field.

  Never: Do not set the time.

- Trigger by: sources of trigger events (Note: You can only set one trigger event once.)

  Alarm input: The alarm is triggered by the security equipment connected from the DI terminals behind the machine, such as door/window detectors, infrared sensors.

  Motion Detection: The alarm is triggered when motion is detected. The camera will send an alarm when any objects appear in the set detection area.

  Video Loss: The alarm is triggered by video loss. The camera will send an alarm when there is no video transmission due to camera sabotage or other reasons.

  On boot: The alarm is triggered by reboot. The camera will send an alarm when the system is rebooted due to power shortage, sabotage, or other reasons.

- Response process: trigger event response (Note: Multiple selections are available)

  Active alarm out: An event is detected by the security equipment connected from the DI terminal behind the machine, such as high-decibel alarms, light projectors. You can set the alarm duration in the “Duration” field.

  Send mail: The alarm will be sent to you by email.

  Send HTTP notification: The alarm will be sent to the HTTP server you specified. To use this function, set the coordinative HTTP server in the Event Server setting page in advance.

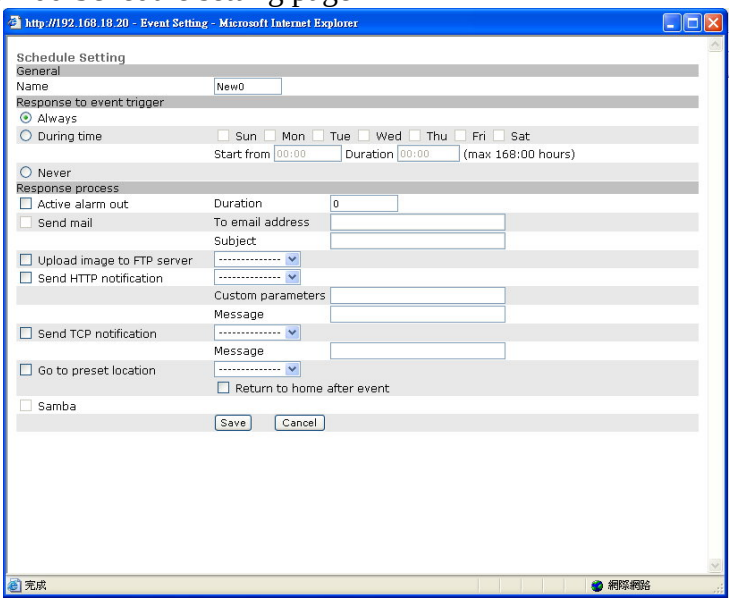
  Send TCP notification: The alarm will be sent to the TCP Server you specified. To use this function, set the coordinative TCP server in the Event Server setting page in advance.

  Go to preset location: The camera will move to the location you specified when a trigger event occurs. To use this function, set the present location of the camera in the main page in advance.

  Return to home after event: The camera will move back to the home position (center)

Click Save to save and activate your settings when you completed setting.

Add Schedule: Add Schedule setting page

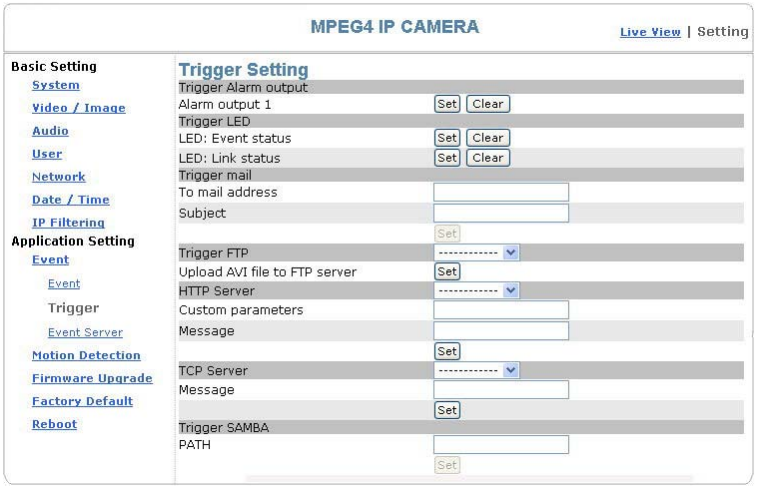


The Add Event setting page and the Add Schedule setting page are basically the same except that the Add Schedule setting page does not have the option “Trigger by” to indicate the sources of the trigger event.
Click Save to save and activate your settings when you complete setting.

Delete: delete the event cluster setting.
Modify: modify the event cluster setting.

Application Setting > Event > Trigger (manual test of trigger response)

Whenever the camera detects abnormal events during the scheduled time, it will automatically respond by performing trigger response. There are 3 types of trigger responses: alarm sending, LED status indicator flash, and emailing the alarm or recorded image to the specified server. To use this function, enter the server information by accessing Application Setting > Event > Event Server. You may perform manual test as specified in this section once you complete the setting to ensure that all functions are working properly.


MPEG4 IP CAMERA
Live View | Setting
Basic Setting
System
Video / Image
Audio
User
Network
Date / Time
IP Filtering
Application Setting
Event
Event
Trigger
Event Server
Motion Detection
Firmware Upgrade
Factory Default
Reboot
Trigger Setting
Trigger Alarm output
Alarm output 1
Set
Clear
Trigger LED
LED: Event status
LED: Link status
Trigger mail
To mail address
Subject
Trigger FTP
Upload AVI file to FTP server
HTTP Server
Custom parameters
Message
TCP Server
Message
Trigger SAMBA
PATH

Trigger Alarm output: Alarm output

Click “Set” to trigger the alarm. Click “Clear” to stop the alarm.

Trigger LED: LED indicator display

LED: Event status: click “Set” to turn on the LED event status indicator. Click ”Clear” to turnoff the indicator.

LED: Link status : click “Set” to turn on the LED Link status indicator. Click “Clear” to turnoff the indicator.

Trigger mail: Sending mail

Click “Set” after you enter the email address and subject to test the integrity of the sent mail.

Trigger FTP: Sending AVI file to FTP Server

Upload AVI files to FTP server to test the file integrity.

HTTP Server: Sending message to HTTP Server

Upload message to HTTP server to test the message integrity. Enter the message in the “Message” field. You may go to Application Setting > Event > Event Server to make a complete custom parameters settings.

TCP Server: Sending message to TCP Server

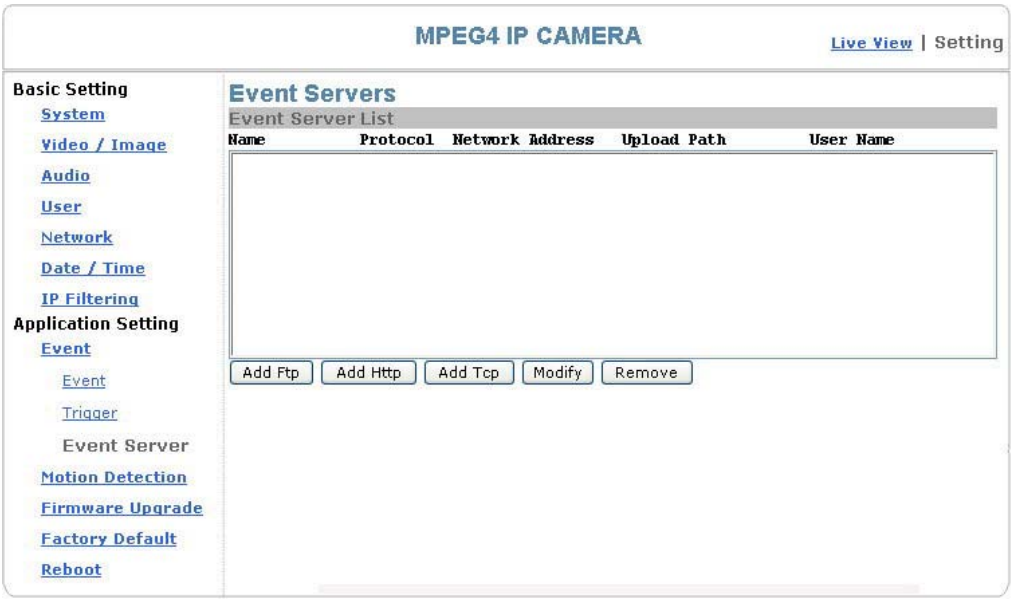
Enter the message in the “Message” field.

Trigger SAMBA: Sending message to Samba shared folder

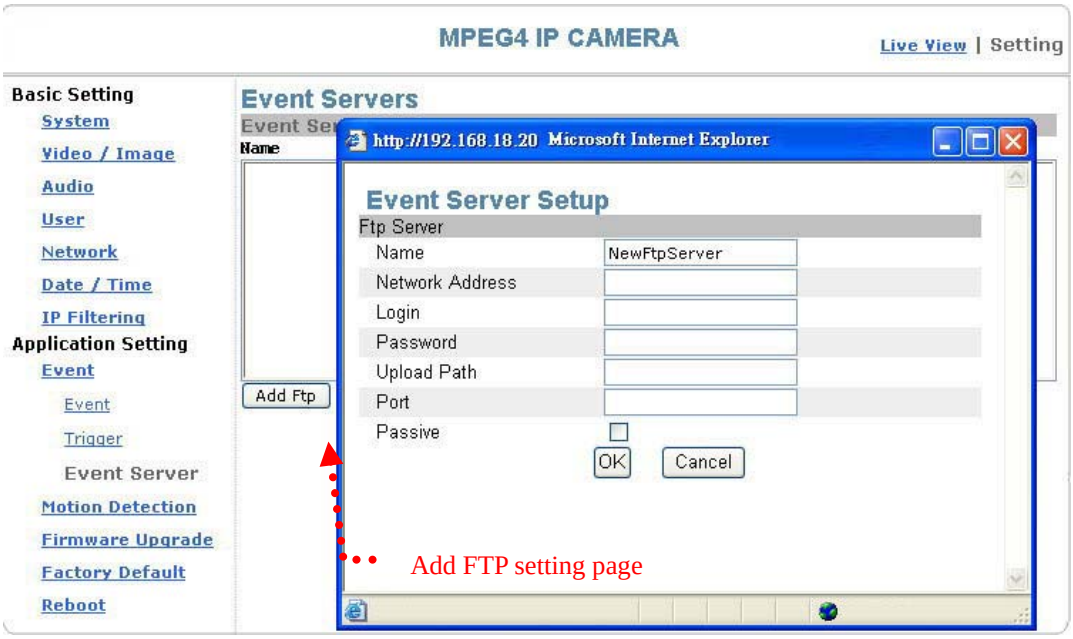
Path: Enter the path of the shared folder in your PC.

Application Setting > Event > Event Servers (setting for uploading trigger event file to the server)

Here you can perform a complete setting for uploading files to the server. Please set servers (SMTP, FTP, SAMBA…etc) in the Event Server setting by the instructions below:

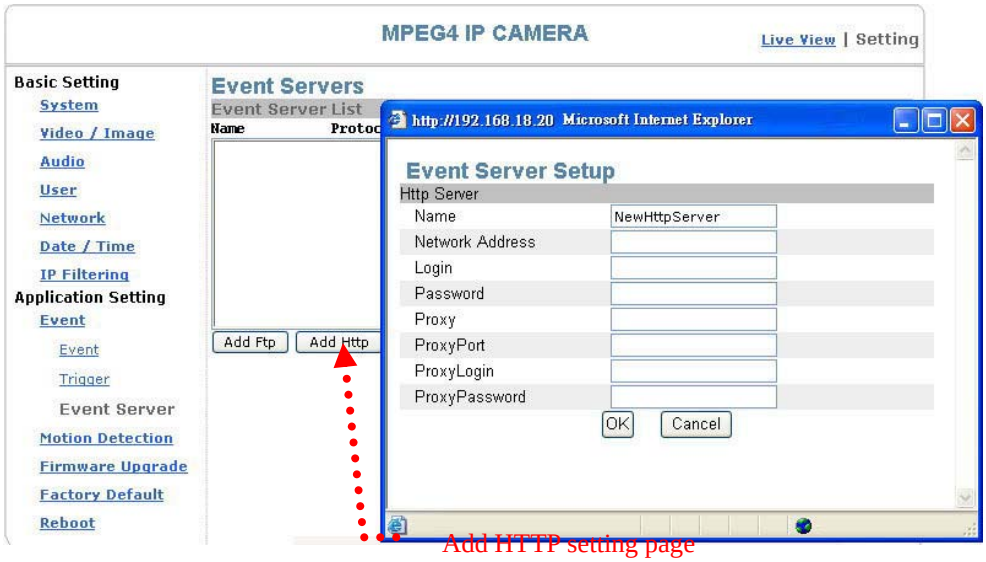


Click Add Ftp to go to the setting page and enter the information of the FTP server you specified.



Name: the name of the FTP
Network Address: IP address of the FTP
Login: Log-in name
Password: Log-in password
Upload Path: Uploading path
Port: Port
Passive: Check to set the FTP status as passive

Click Add Http to go to the setting page and enter the information of the HTTP server you specified.

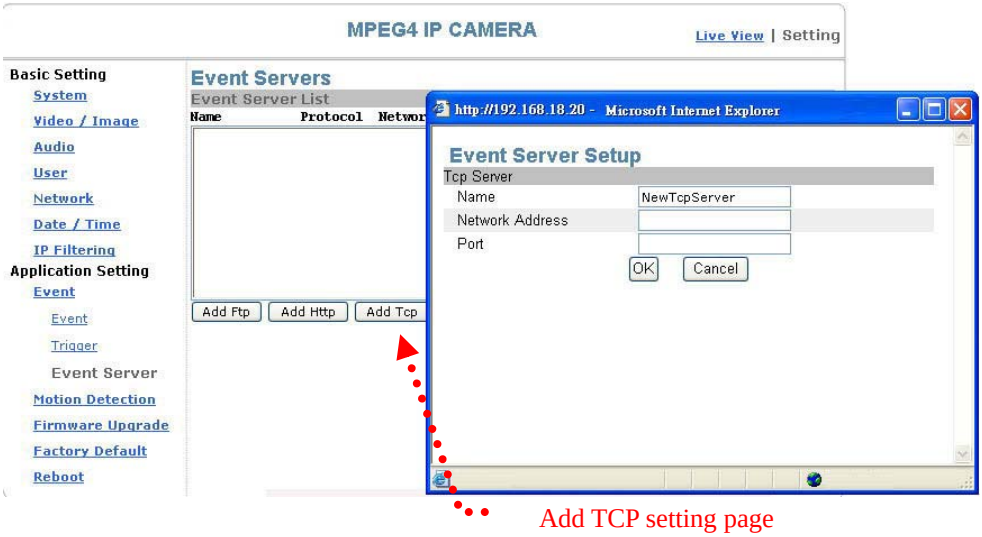


Name: HTTP name
Network Address: HTTP IP address
Login: Log-in name
Password: Log-in password

Proxy: Proxy server name

ProxyPort: Proxy server port
ProxyLogin: Proxy server log-in name
Proxy Password: Proxy server log-in password

Click Add Tcp to go to the setting page and enter the information of the TCP server you specified.



Add TCP setting page

Name: TCP server name
Network Address: TCP IP address
Port: TCP port

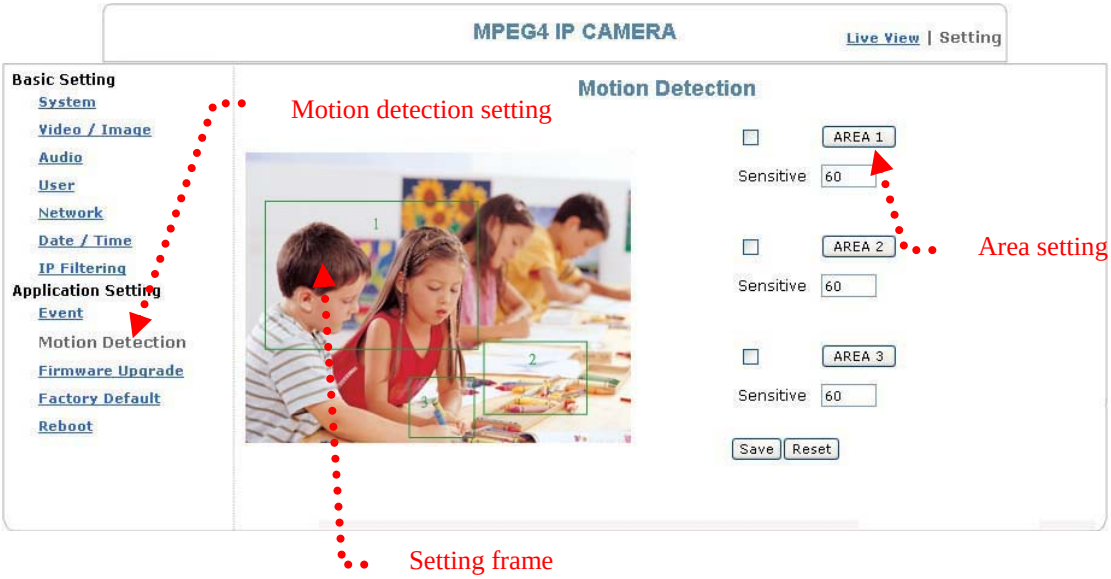
Modify: Modifies the setting value

Remove: Removes the setting value

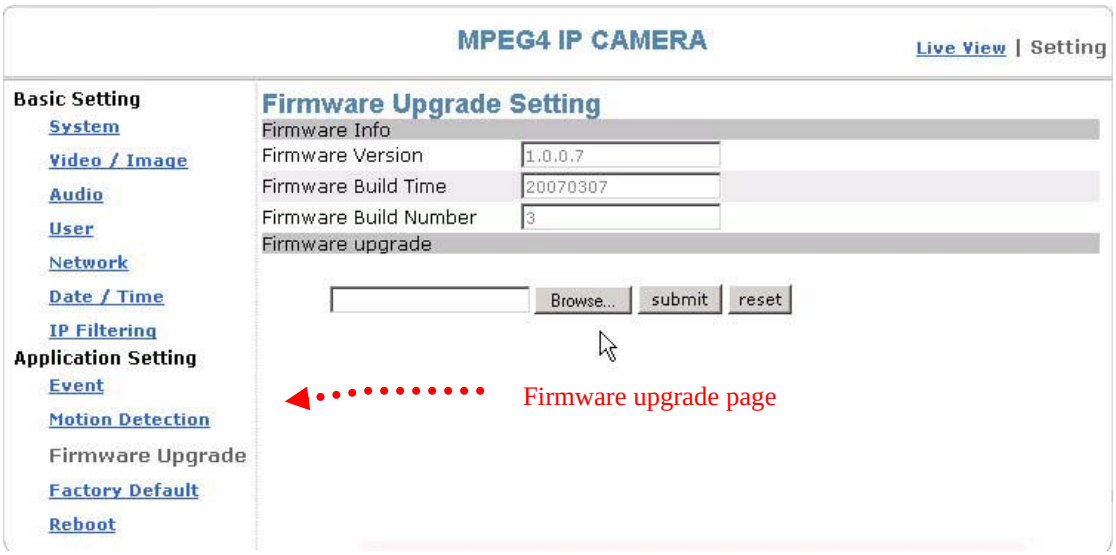
Application Setting > Motion Detection

You can open the setting frame by clicking on the area to monitor. To move area to monitor, drag the area with your mouse; to adjust the size of the frame, drag the arrow to adjust after you move the mouse to the edge of the area and left-click; There are 3 frames available for setting. You may adjust the sensitivity of the area by entering the degree of sensitivity in the “Sensitive” field. “1” is least sensitive, ”100” is extremely sensitive.

Select Save to complete and activate your settings.



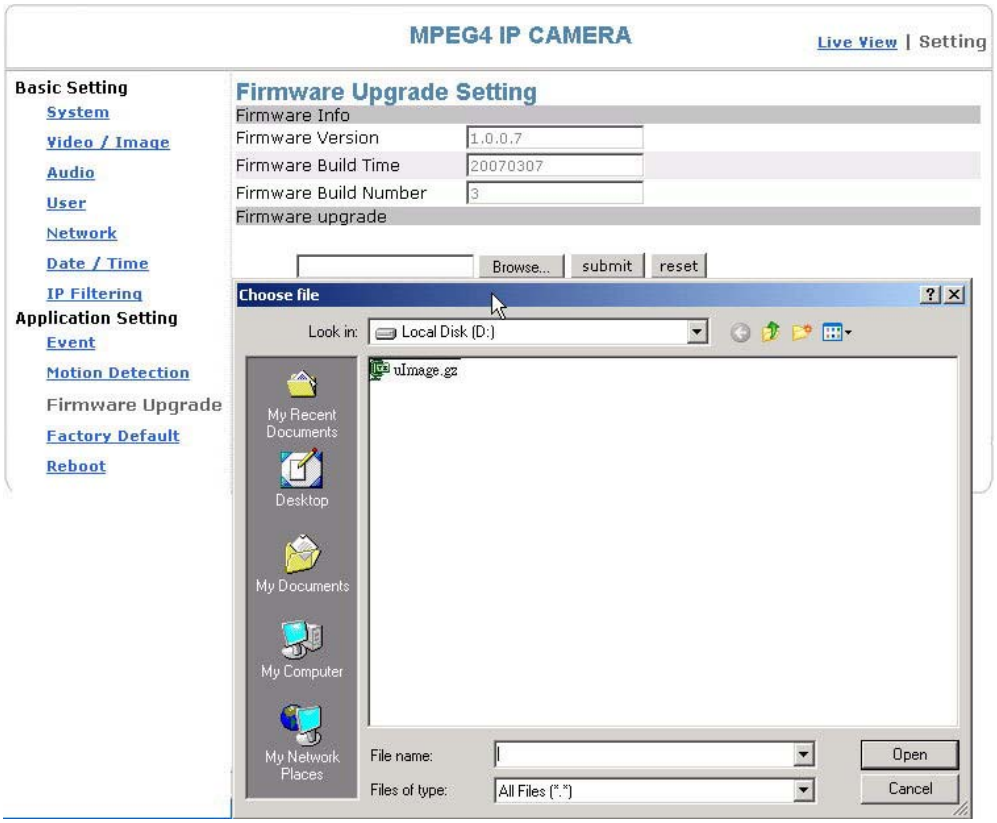
Application Setting > Firmware upgrade



Contact your dealer for more information about firmware upgrade. The sales representative will transmit the latest version to you via e-mail. When you receive the firmware, decompress the file (**uImage.gz)** to your PC and follow the steps below to execute the upgrade.

Important! Read Carefully!!

1. Close all active applications on your PC.
2. Select “Firmware Upgrade”
3. The Firmware Upgrade Setting page appears.


MPEG4 IP CAMERA
Live View | Setting
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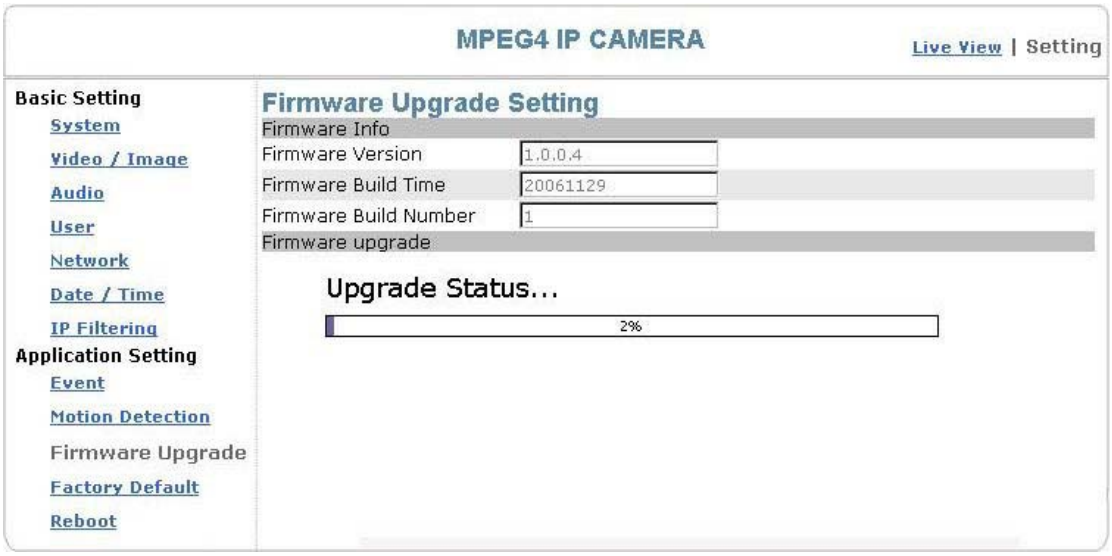
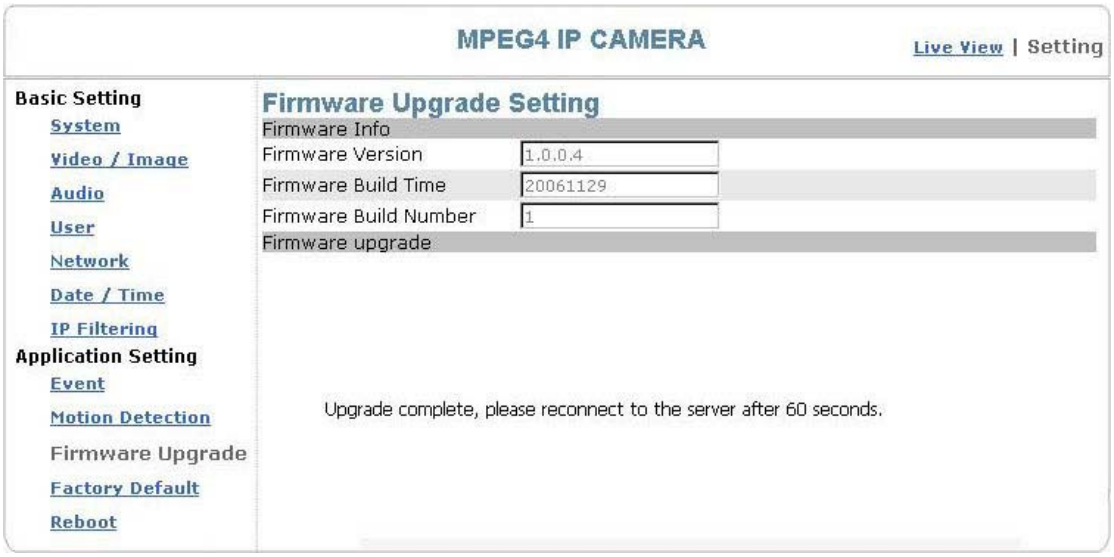
Date / Time
IP Filtering
Application Setting
Event
Motion Detection
Firmware Upgrade
Factory Default
Reboot
Firmware Upgrade Setting
Firmware Info
Firmware Version 1.0.0.7
Firmware Build Time 20070307
Firmware Build Number 3
Firmware upgrade
Browse...
submit
reset
Choose file
Look in: Local Disk (D:)
uImage.gz
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
Files of type: All Files (*.*)
Open
Cancel

4. Click Browse… to select the location where the firmware file is stored.
5. Click submit.
6. The auto upgrade runs.

The Upgrade Status shows the progress of the upgrade.



When the firmware upgrade has been completed, the machine reboots automatically. Reconnect to the server after 60 seconds.

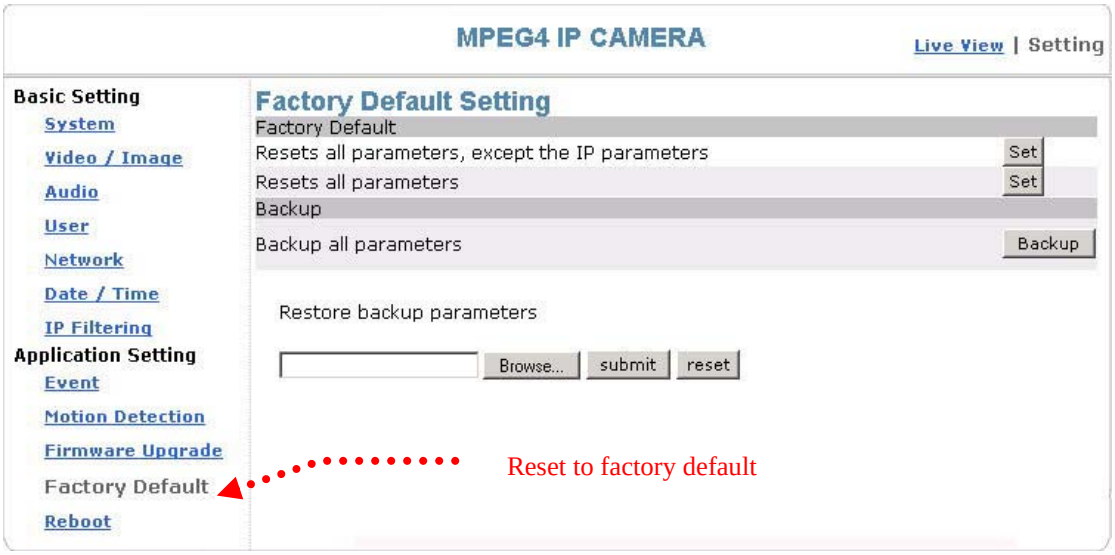


Note: The new firmware is burned into the Flash ROM during the upgrade, so you must take care during the process and make sure it is not interrupted during the operation. The system may be damaged seriously and need to be returned to the factory for repair if the power cable is removed or becomes loose during the upgrade. Firmware upgrading in a wireless network environment is not recommended because unstable packet transmission may bring about loss of data.

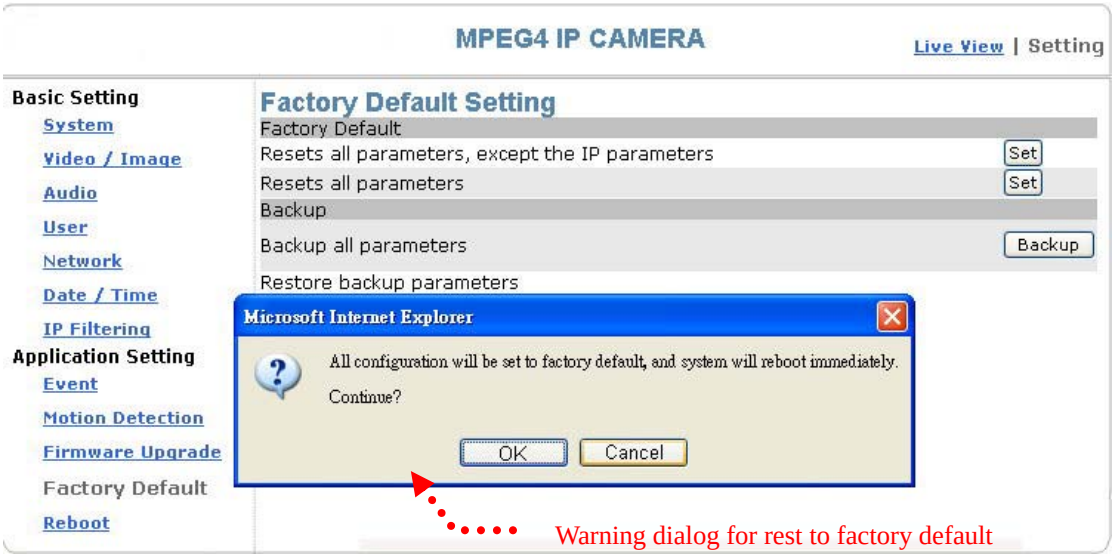
When the firmware upgrade has been completed, you don't need to restart the camera manually. The camera will reboot automatically after 60 seconds (Reboot OK). Then open the IE browser and key in the IP address (The original IP address remains undeleted).

Application Setting > Factory Default

You can use this function to reset to factory default, but all changes, including the IP address, you have made are deleted.



Factory Default: Reset to factory default.



Resets all parameters, except the IP parameters:

You can use this function to reset to factory default. All changes you have made are deleted but the IP address and all settings relevant to networking remain valid, including cable and wireless network settings. Click Set to complete the reset.

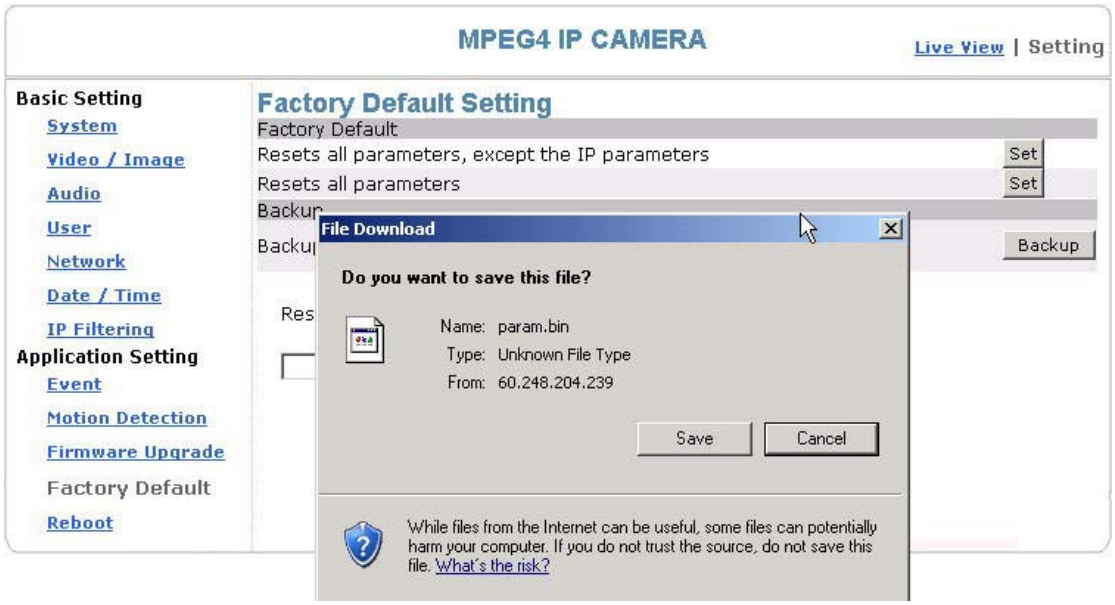
Resets all parameters:

You can use this function to reset to factory default. All changes, including the IP address, you have made are deleted. Click Set and a warning window appears to ask if you really want to reset to factory default. Click “OK” to complete the reset.

Backup: Data backup

Back all parameters:

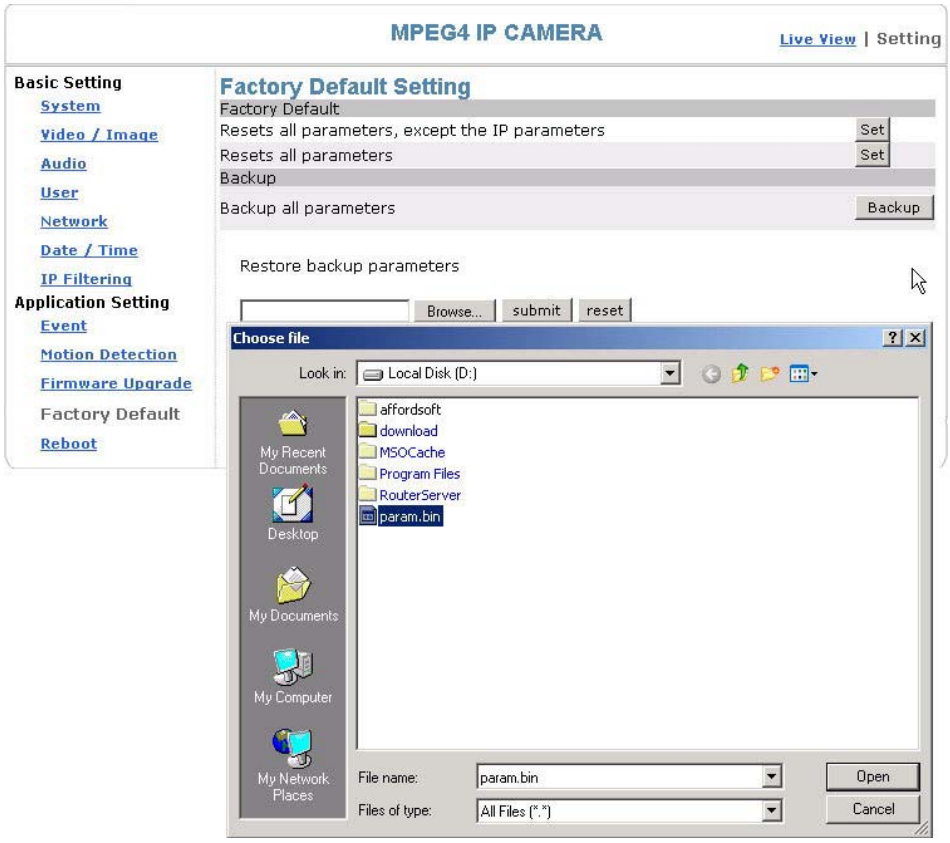
Back up all changes you have made. When you click Backup, a file download window appears. Back up the file named param.bin (**Attention: Don't change the file name; otherwise, the backup may fail.**)



File backup

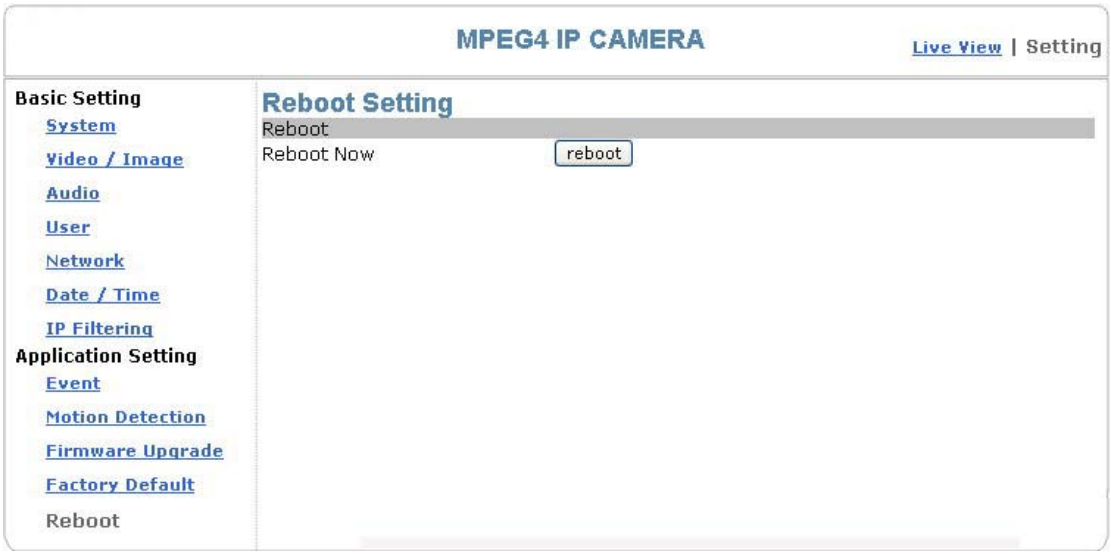
Restore backup parameters:

You can select this function to restore the changes you have made. To do this, click Browse… to select a backup file and click submit to confirm the restoration.


MPEG4 IP CAMERA
Live View | Setting
Basic Setting
System
Video / Image
Audio
User
Network
Date / Time
IP Filtering
Application Setting
Event
Motion Detection
Firmware Upgrade
Factory Default
Reboot
Factory Default Setting
Factory Default
Resets all parameters, except the IP parameters
Set
Resets all parameters
Set
Backup
Backup all parameters
Backup
Restore backup parameters
Browse...
submit
reset
Choose file
Look in:
Local Disk (D:)
affordsoft
download
MSOCache
Program Files
RouterServer
param.bin
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
param.bin
Files of type:
All Files (*.*)
Open
Cancel

Application Setting > Reboot

You can enable this function for the camera to reboot automatically.



Attachment A: Bandwidth Estimation

Since the FPS is dependent on the bandwidth of the camera, the relationship between the size of an image file and the bandwidth is always the major concern of the system construction engineer.

The table below shows the relation between the resolution and size of an MJPEG file in the NTSC system. Please note that the values in the table are for reference only, because the size of an image file is closely related to the complexity of the environment and the actual situation of the place being monitored.

Image Resolution	Average range of Data Sizes
176 x 122 (QCIF)	20 – 40k bit
352 x 240 (CIF)	40– 200k bit
640 x 480 (VGA)	180 – 400k bit
704 x 480 (D1)	200 – 530k bit

Ex.: The transmission speed on the Internet is 2fps under 352 x 240, i.e. 40k*2=80k to 200*2=400k per second. It is suggested to apply for 512K "upload" bandwidth.

Note 1: What the camera needs at the client end is the “upload” bandwidth. However, most ISPs in Taiwan provide download bandwidth that is wider than the upload bandwidth. Therefore, symmetrical bandwidth is a good choice for users who need wider upload bandwidth. Ex. download/upload = 521K/512K

Note 2: 32 kbps to 64kbps is required for transmission of audio signals.

Attachment B: Troubleshooting and FAQs

Question	Answer and Solution
Function	
What encoder and decoder are used by the camera for sounds and images?	The camera uses MJPEG or MPEG4 compression technology to provide quality images. MJPEG is a standard image compression technology applicable to different browsers without the need to install additional software. MPEG4 is a next-generation image compression standard and can provide high image quality at low bandwidth. The sound decoder uses PCM (Stereo, 16bit, 8kHz) compression technology.
How many users are allowed to view the camera simultaneously?	The maximum number of viewers depends on the bandwidth of the client accessing the camera. About 5~6Mbps are used to process data of the camera, so the maximum number of viewers changes in proportion to FPS and the resolution of the image. Obviously, the higher the number of viewers, the lower the performance at each client end.
Is it possible to catch the image from the camera in a real-time manner?	Yes, you can use the snapshot function from the main control page.
Camera Installation	
Can the camera be used outdoors?	The camera is not waterproof, so a special waterproof cover must be available for outdoor use. Please note that the waterproof cover may affect the built-in pickup function of the camera.
Link LED does not light up.	• Check that the attached standard transformer is not damaged. Plug the power cable and reboot the machine. • If the problem remains, contact your dealer for help.
What network cable is used for the camera?	The camera uses a 10 or 100 Base-T Category 5 UTP network cable.
How to install and operate the camera behind a firewall?	If you have a firewall in your network environment, please select HTTP mode (Port80). Generally the port 80 is always open for the browser to access the Internet.
What are the username and password for the first use and after reset to factory default?	Username = **root** Password=**root**. Please change your password immediately after entering the system to ensure information security.
I forgot the username and password I used for the setting. What should I do?	Please proceed as follows: **1.** Hold the Reset button for 4 seconds after booting to reset the password to preset. **2.** Change the username and the password.
I forgot the IP address of the camera. What should I do?	Use IP Finder to locate the IP address of the camera. Please connect the camera and the PC on which the IP finder is executed to the same hub.
IP Finder cannot find the camera.	• When the camera still can't be located over 1 minute, re-activate the camera. • Do not connect the camera to more than one router. The IP Finder will not be able to detect the camera. • If the IP of PC on which the IP Finder is executed is not correctly set, the IP Finder will not be able to locate the camera. Please

	confirm that the IP address has been properly set. • The anti-virus applications on the PC or the firewall might block the IP Finder from execution. If you can not execute the IP Finder, please disable your anti-virus applications or firewall.
Internet Explorer does not display the camera screen correctly.	Please be sure that the version of your Internet Explorer is 6.0 or later. Should you have any difficulties, please log on the Microsoft website to update your browser. Microsoft website: http://www.microsoft.com/windows/ie.
IP Finder cannot store network parameters.	• Do not use spaces. Use underline "_" or dash "-". • Your connection might have problems. Please ensure that the network parameters and the camera connection are correctly set.
Access to Camera	
I cannot enter the login screen and camera page from Internet Explorer. What should I do?	• The IP address of the camera is possibly being used by another PC or device. Please disconnect the network cable from the camera and execute PING to confirm if the IP address has been used. • It is possibly due to the network cable. Please use the cross-line network cable to connect the PC and the camera, and see if the log-in screen appears. • Be sure that the network connection and the settings are properly configured. • Be sure to enter correct IP address in the Internet Explorer. If you use dynamic IP address, the address might have been changed after your last check. • Internet traffic might slow down the webpage access. Please wait. • Be sure that you are using http port. The default setting is Port 80. It will be converted to the private camera IP address. • The port assigned for your camera might not able to access the Internet. Contact your ISP to acquire a usable port. • The proxy server might be blocking you from connecting to the camera. Do not set the proxy server. • Please be sure that the default gateway address is correct. • Your router might need Port conversion. Refer to the user manual of your router for details. • The package filtering function of the router might have blocked the access to the external Internet. Refer to the user manual of your router for details. • If you are using DDNS, please remember to set the default gateway and server address. • If none of the procedures above is working, please reset to the factory default values and re-install. • If the problem still persists, there might be some problems with the product. Contact the dealer who sold you the product for more help.
No image appears on the main control screen.	• When using PC to connect to the camera for the first time, a security warning window will tell you that you need to download the ActiveX control. When you are using Windows 2000 or Windows XP, you might need a properly- authorized user account to install the application • Network traffic might slow down the video streams. If the video is extremely slow, select a lower resolution for a lower bandwidth requirement.

Check whether the Active X control of the camera has been installed in your computer.	Select C:\Windows\Downloaded Program Files to check if the file "**Media Viewer Class" is registered**. The status bar should indicate the file has been installed. If you do not see this file, be sure that your Internet Explorer security is properly set (the default value is moderate). Re-connect to the camera main page and download the file again. Incomplete download or installation of the camera ActiveX control is the major reason for this problem. Check the security setting of your Internet Explorer. Close and re-open Internet Explorer, and enter the main page to see if you can log in.
Internet Explorer displays the following message: Downloading the ActiveX control is prohibited under the current security setting."	Change the IE security setting to allow downloading unsigned ActiveX control. IE→Tools→Internet Options→Security→Custom Level. Change "Inactive" to "Tips" for the ActiveX control if required.
The camera can operate only in the LAN rather in the Internet environment.	• A firewall mechanism might have been activated. Check the setting of your system or ask your network administrator. To access the camera from the Internet, you may need to change the setting of the firewall. • Make sure that your camera does not conflict with other servers on the same LAN. • Check the router and make sure that its setting allows it to access your camera from the Internet.
The number of frames transmitted are less than the defined value.	• Congestion of the network or objects of the image may affect the number of frames transmitted. The number of frames may be less than the defined value when they are transmitted via a congested network. • The number of frames transmitted may become less when multiple users are viewing the video stream. • The network hub might be another reason for this problem, especially when multiple camera video streams are viewed simultaneously.
When the audit function is activated, the video streaming area becomes black or the transmission becomes slower.	• When you connect your PC to the camera, no sufficient bandwidth is available to support more frames with the current resolution of video streams. Reduce the resolution to QCIF(176x144) or CIF (320x240) and deactivate the audio function. • The audio signal needs 32 to 64 kbps of your bandwidth. You can deactivate the audio function to improve the image quality. Your Internet service may have not sufficient bandwidth to support audio transmission.
Images cannot be transmitted via e-mail or FTP.	• Make sure the IP address of the gateway and domain server (DNS) have been defined correctly. • Where FTP still fails, contact your ISP or network administrator to check the FTP server.
I can't control the camera to move up, down, right, left or to the center or preset point.	• When communication to the camera stops, click **"Refresh"** on your IE browser to refresh the transmission. • It might be that other users are controlling the movement of the camera. • The horizontal/vertical movement of the camera has reached its limit. • The horizontal/vertical remote control option of the camera might have been deselected.

I can't control the camera to move up, down, right, or left smoothly.	Delay might occur when you are accessing a video stream and remotely moving the camera horizontally. Where significant delay is identified when you move the camera horizontally or vertically deactivate the audio streams and/or reduce the size of the video stream...
Camera Image Quality	
Camera has a problem focusing.	• The lens might be contaminated with dust, fingerprints, or other dirt. Use a special cleaning cloth to clean the lens or adjust the focus manually. • Focusing might be impossible in some cases. If the object is too close to the lens, more it away from your camera.
Color of the video stream is too deep or light.	• Please confirm that the image your are watching has the best quality. Adjust the setting of your display card (color quality) to at least 16 bits (24 bits or more are recommended). • Incorrect camera video setting. You may need to adjust some parameters, such as brightness, contrast, color, and saturation.
Video stream flashes.	• Incorrect power cord frequency may cause flashing of the image. Confirm that your camera uses NTSC or PAL system. • The image flashes if the objects are black. In this case, adjust the illumination brighter around your camera.
This is noise problem during transmission of the image.	Noise may be produced if you install your camera at a very dark place. Adjust the illumination around your camera.
Others	
How to reboot my camera?	If you only need to re-boot the system and don't want to change any setting, enter the Setting page and select the Reboot option at the bottom of the screen. The system will reboot automatically.
I can't replay recorded files.	Confirm that you have installed Microsoft®'s DirectX 9.0 or above and use Windows Media Player 9 or above.

NOTE :
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/ TV technician for help.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.